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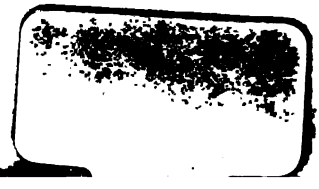

DR. TATHAM'S BAMPTON LECTURES

MDCCLXXXIX

THE

CHART AND SCALE OF TRUTH

IN TWO VOLUMES

VOL I

I have not made it my business either to quit or follow any authority, in the ensuing discourse: truth has been my only aim; and wherever that has appeared to lead, my thoughts have impartially followed, without minding, whether the footsteps of any other lay that way or not. Not that I want a due respect to other men's opinions; but, after all, the greatest reverence is due to truth.—Locke, Hum. Und. book i. chap. 4, § 23.

ΤΩ ΑΛΗΘΕΙ ΠΑΝΤΑ ΣΥΝΑΔΕΙ.—Aristot. Eth. Nicom. lib. i. cap. 8.

THE CHART AND SCALE
OF TRUTH
BY WHICH TO FIND THE CAUSE OF ERROR

LECTURES READ BEFORE THE
UNIVERSITY OF OXFORD AT THE LECTURE FOUNDED BY
THE REV. JOHN BAMPTON M.A.

BY EDWARD TATHAM D. D.
LATE RECTOR OF LINCOLN COLLEGE OXFORD

A NEW EDITION REVISED CORRECTED AND
ENLARGED FROM THE AUTHOR'S MANUSCRIPTS WITH
A MEMOIR PREFACE AND NOTES
BY E. W. GRINFIELD M. A.
LATE OF LINCOLN COLLEGE

LONDON
WILLIAM PICKERING
1840

1063.

PRINTED BY C. WHITTINGHAM, CHISWICK.

TO

THE HEADS OF COLLEGES.

RIGHT REVEREND AND REVEREND SIRS,

I APOLOGIZE, as I ought to do, for the delay in printing these Lectures, by saying, that, when I had the honour to be appointed by you, my particular engagements, beside my ordinary employments, were so many, that I could not take my subject till January, 1789; that some of these engagements continued upon my hands, all the ensuing spring; and that, after I had finished at St. Mary's, some important concerns called me away the whole summer, to a distant part of the kingdom. On account of the haste in which they were composed, I wished to revise them, and found the subject increasing upon me, in every page.

Such as they are, I now beg leave to present them to you, in a form, which, I judge, will give my extensive subject the best advantage, accompanied with a hearty wish for your health and prosperity in all things; that you may see the arts and sciences, virtue, religion, and all good learning flourish under your auspice; that, as your University improves in splendour, it may advance in reputation; and that, as it is the first in ornament, it may be the first in discipline.

I am, Gentlemen,
your most obliged,
and obedient Servant,

THE AUTHOR.

LINC. COLL. July 10, 1790.

Extract from the last Will and Testament of the late Reverend JOHN BAMPTON, *Canon of Salisbury.*

"I direct and appoint, that the eight Divinity Lecture Sermons shall be preached upon either of the following subjects—to confirm and establish the Christian faith, and to confute all heretics and schismatics—upon the Divine Authority of the Holy Scriptures," &c.

PREFACE.

A NEW edition of "The Chart and Scale of Truth" was long and earnestly demanded, during the life of its learned author, but, through what he confesses "his native indolence," he never submitted to the labour of carrying it through the press; yet he appears to have constantly kept this object in view, for he has left a copy of his work, so much enlarged and altered, as in some measure to give it the character of a new publication.

It is from this enlarged and corrected copy the present edition has been taken; but the Editor has felt it his duty to exercise his discretion in the choice of the materials. The notes and observations appear to have been written at different intervals, during many years; several are

duplicates, with more or less variations, others are unfinished, and nearly all are left for future consideration and improvement. Under these circumstances, the editor was intrusted with a discretionary power to omit or admit whatever he might deem expedient; and he has endeavoured to exercise this discretion, according to the best of his judgment.

The author, as it would appear from his manuscripts, was desirous that, in any republication of the "Chart and Scale," it should assume the aspect of a distinct logical treatise, and resign all appearance of Bampton Lectures. But this design was not sufficiently matured to warrant the Editor, in bringing out the work, in this independent form. He has therefore still allowed it to retain its original character; but to render its arrangement, as a treatise of logic, somewhat more complete, it has been found necessary to arrange several of the earlier lectures, as a general introduction; and to throw the two last chapters of the first volume, into the form of an appendix.

The principal new matter consists of the chapters on metaphysics, which have been retrieved from the author's manuscripts, but there is scarcely a page, in which, some additions or alterations may not be discovered. Many of these respect merely the style, which, it must be admitted, is somewhat harsh and obscure, whilst others are enlargements or illustrations of the argument. There are also considerable omissions, relating to temporary topics, long since passed away. For some of these, the Editor has the authority of Dr. Tatham; for others, he is himself responsible, unwilling to perpetuate forgotten controversy, or to reiterate charges, which can no longer be sustained. The copious table of contents and general index will be found of unquestionable utility to the scientific student.

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MEMOIR
AND GENERAL INTRODUCTION.

OF Edward Tatham, the learned and acute author of the present work, we have few biographical materials. He was a native of Yorkshire, as appears from the register of his baptism in the parochial chapelry of Dent, in the parish of Sedbergh, dated October 1, 1749, and the son of James Tatham, gentleman, to whom he affectionately inscribed his volume of Discourses, introductory to the Study of Divinity, published in 1780. It was no ordinary gratification to an aged parent to receive such a token of filial gratitude and intellectual ability.

He was educated at Sedbergh Grammar School, under the care of the Rev. Dr. Bateman, who appears to have been a teacher of uncommon worth. Dr. Tatham, in his

affectionate manner, always termed him, in his Yorkshire accent, "*Ould* Bateman," and Dr. Haygarth of Bath, who was also one of Dr. Bateman's pupils, appears to have retained the same grateful recollections of his early instructor. To all, who can enter into the feelings of grateful pupils desiring to record the merits of their old schoolmaster, it will give pleasure to read the letters, many years afterwards written by Dr. Haygarth to Dr. Tatham, which are placed in the appendix to this short memoir[1]. He was admitted of Queen's College, 1769, and took deacon's orders in 1776, and priest's in 1778. On his first taking orders, he undertook the curacy of Banbury, where he published the sermons already mentioned. Whilst resident at Queen's, the fire, in 1779, which consumed a considerable part of the college, destroyed his books and some of his manuscripts. The materials on which the Chart and Scale of Truth is founded

[1] Dr. King, the late Bishop of Rochester, was also educated at Sedbergh, and was the contemporary with Dr. Tatham.—See Appendix, No. 1.

are yet in existence; but no place or date is mentioned, by which it can be ascertained, where or when they were put together. In 1781, he was elected fellow of Lincoln College, and became the acting tutor. It was during this period he preached the Bampton Lectures, the first volume of which was published in 1790, and the second in 1792. In March, 1792, he was elected Rector of Lincoln College, on the decease of Dr. Horner.

His powerful mind was not confined to theological inquiries; he took an active interest in the political questions of that critical period. In 1790, he published a remonstrative Letter to the Revolution Society, and in the year following, a Letter addressed to Mr. Burke. But it is unnecessary to particularize his various minor publications, as a list of their titles is subjoined to this brief memorial.

On the election of Dr. Tatham to the rectorship, he became possessed of a handsome income, which he very liberally expended in improvements on the rectorial houses at Combe and Twyford. At a

later period, he was a munificent contributor to the improvements in the college, where he was enabled to display his architectural attainments.

In 1801, he married Elizabeth, daughter of John Cook, Esq., of Cheltenham, by whom he had no issue. She still survives, to revere his memory, and lament her loss.

He retained his health and vigour of mind and body to an advanced age, but when infirmities came upon him, he remained, for the most part, in the rectorial house at Coombe; where, by the statutes of the College, he had a right of residence. The new front of this house was built by Dr. Tatham with much skill, in the Gothic style, at a considerable expense; Coombe being indeed his favourite residence, and he died there, April 24, 1834, in the eighty-fifth year of his age. Some of his last expressions testified his firm reliance on the merits of his Redeemer. His remains were, at his own request, deposited in the collegiate church of All Saints, Oxon, and an expressive, though not flattering

likeness has been put up in the hall of Lincoln College.

In the general character of his mind, as well as in the style of his writings, Dr. Tatham perhaps approached to the genius of Warburton, more than to that of any other writer. Throughout the Chart and Scale of Truth may be discovered many of the "disjecta membra" of that original, but eccentric author. There is much of the same rough unpolished strength in his language, and his kindred attachment to Warburton, may be discovered also in his frequent reference to the Legation of Moses[2].

[2] In his exterior manners and address, Dr. Tatham had many of those peculiarities, so often incidental to men of genius, which result from living in a kind of intellectual world of their own. He was rather negligent of those official forms which are the ceremonials of a university. It can scarcely be wondered, therefore, that he never served the office of vice-chancellor. But it may be confidently stated, that he was far above any feelings of envy or malignity, however the pungency of his language might occasionally offend. Two anecdotes, strongly characteristic, it may not be amiss to introduce:—At the great entertainment given to the allied sovereigns, at the peace, in the Oxford Theatre, the first toast proposed by the Prince Regent was "the King." —Dr. Tatham immediately arose, and begged to remind his royal highness they always drank in that university—"Church

Having given this short account of a great and good man, we now propose to furnish the reader with a brief introduction to the work, by which Dr. Tatham will be hereafter chiefly remembered, and this is the more necessary, on account of a certain want of arrangement, which may

and King." The prince, with his well known politeness, acknowledged his error, and the toast was given accordingly. —The other is of a higher order. On one of those college festals, called *gaudies*, a number of the undergraduates had kept their ovations to a late hour, and becoming somewhat noisy in their mirth, the rector sent his old servant to desire them to separate. Not obeying the mandate, he sent a more peremptory order; this so exasperated two of the party, who were the most excited, that they rushed out of the room, and following the servant into the lodge, commenced a violent assault on the rector's person. Such an outrage they inferred would lead to their summary expulsion; accordingly they rose early and cancelled their names on the college buttery book, and were about to take their departure. Dr. Tatham, knowing their fortunes in after life would be seriously injured, sent for them, and after a suitable reprimand, thus addressed them:—"Gentlemen, your names can only remain on the books, on these conditions: you are to be strictly confined to the college during the next vacation. As to you, Mr. —— who are intended for the law, I require that you furnish me with a comprehensive analysis of Blackstone's Commentaries, and you, Mr. —— who are for the church, must furnish a similar analysis of Hooker's Ecclesiastical Polity." It is needless to say, they both gratefully acquiesced in these terms.—This anecdote may well stand in the stead of any laboured eulogium on Dr. Tatham's character.

be accounted for, in some degree, from the unfitness of the materials, as subjects of pulpit address.

"The Chart and Scale of Truth," as Dr. Reid has justly remarked in his letter[3] to Dr. Tatham, is essentially a system of logic, formed on the principles of Lord Bacon's writings, and may be considered as a practical commentary on the "Novum Organum." Not that he has followed Bacon in a servile and undeviating manner—for he has adopted his general divisions of mind from Aristotle—but that, in the general texture and composition of the work, it is based on that principle of induction, as opposed to syllogism, which constitutes the main distinction between ancient and modern science.

The primary and pervading principle of the entire work is this—that truth, though essentially the same and uniform in the Divine Mind, becomes varied and modified, as it passes through the human faculties—just as light receives a hue and

[3] See Appendix, No. II.

colour from the medium through which it passes—and that, in this manner, truth may be considered as passing through the intellect, the will, and the imagination, and branching out into the various departments of mathematics, physics, metaphysics, morals, history, and poetry, demanding specific modes of reasoning and evidence, yet retaining a common resemblance, so that they may all and each be brought to bear upon the "summum genus" of knowledge,—the knowledge of revealed theology. This is the fundamental principle, which pervades the work, and if the reader keeps this in mind, he will find little difficulty, in mastering its details.

In working out this comprehensive problem, the author is first led to consider the principles of mathematical reasoning, which are strictly demonstrative, and which bear no relation to the principles of induction. He then remarks, that it was by a profound analysis of this mathematical reasoning, Aristotle discovered the method of syllogism, and that all syllogisms are reducible

to those of the first figure *(barbara)*. Syllogism is properly and strictly only applicable to matters of pure demonstration; that is, to the subject of pure mathematics. Hence he infers its comparative unfitness and incompetency to deal with subjects of probable and contingent truth.

Such is the master key to this new system of logic, and when properly examined, it will be found to explain all the controversies which have arisen between the advocates of the Aristotelian and Baconian systems. In matters of geometry and arithmetic no induction is required; the truth is self evident and indubitable, it rests on definitions which can allow of no dispute or variation, and upon axioms which carry their own evidence, and postulates which are admitted the moment they are enunciated. To subjects of this purely theoretic kind, the syllogistic method of reasoning (into which all mathematical reasoning may be resolved) is strictly applicable; but it is applicable only, under very great restrictions, to any other; be-

cause all other kinds of truth refer to different states of mind, than that of pure intellect.

And hence it is, that logic, as Dr. Whately himself acknowledges, as an art, has nothing to do with the truth of the major proposition. This it always takes for granted, assuming its truth, like that of mathematics. But though the geometer may always safely assume his major premise, it is not so with the reasoner on other subjects. And hence it is, that syllogism becomes so totally inefficacious as the instrument of moral or theological reasoning.

The evil of the syllogistic logic consists, therefore, in attempting to apply the art of demonstrative reasoning, to subjects which do not admit of demonstration; and the consequence is, that all moral truths, which are screwed down by syllogism, are nothing else than so many identical propositions; the conclusion being nothing less than a repetition of the major proposition (which is always universal), under a specific form.

But, though not an instrument for the discovery of probable truth, it is contended

by many, that syllogism is an admirable instrument for the detection of error. It would indeed be invaluable, if such were the fact; but a few considerations may point out its very narrow limits even in this respect.

That we may convict opponents of paralogisms, or false syllogisms, by a proper use of syllogistic reasoning, there can be no question; but it is only an error of *form* that we can possibly detect. If we ascend to principles or premises, we must first descend to the method of induction; we can only examine universals, by an investigation of the particulars contained under them; but all major propositions may be considered as universals: consequently, all major propositions require to be examined by the inductive process. The errors, therefore, which can be detected by syllogism, are exclusively those which may arise in the use of syllogism. They respect not the truth of things, but the truth of words, the proprieties of language; thus far and no farther, the range of the syllogistic logic may extend. "The greater logic," says

Sir John Herschel, " may be termed *rational;* whilst to the inferior department, which is conversant with words alone, the epithet *verbal*, may for distinction be applied[4]."

And hence it is the application of syllogism can find little or no scope, in the progress of modern science, and that amidst all the brilliant discoveries of physics, chemistry, or geology, the inductive process is constantly brought into action, whilst that of syllogism is scarcely ever alluded to. But, what still further demonstrates its narrow limits is this—that the purely geometrical process, which can be reduced to syllogism, has itself been found somewhat too cumbrous for the complicated calculations of modern science. Had Newton or La Place confined themselves to the process of the ancient geometry, they could never have succeeded in their sublime discoveries. It is well known, that the celebrated Matthew Stewart did not succeed in employing the ancient geometri-

[4] Prelim. Discourse to Nat. Philos. p. 19.

cal process to the interpretation of the Principia.—How deplorable then would be the attempt to demonstrate Newton, by the intervention of syllogism[5].

But it may be thought, that it affords, at least, a useful discipline and exercise for the youthful faculties, and that, as such, even though its immediate benefits are tri-

[5] To perceive the utter inutility of syllogism, whether on subjects of demonstrative or probable truth, it is only necessary to state, that, to demonstrate the first proposition of Euclid syllogistically, no less than eight syllogisms are required. Of these, the first four are conditional, which are to be reduced to *barbara* by four others, to convert the problem into a theorem.—See Whateley's Logic, book iii. chap. iv. sect. 6.

This *stultus labor ineptiarum* may, however, serve to convince the student, that Dr. Tatham was not mistaken in his conjecture, that the invention of syllogism may be traced to the logical analysis of such geometrical problems. It may also convince him, how unprofitable it must be to apply this cumbrous machinery to the investigation even of the simplest mathematical process.—But let us suppose, that, instead of the A and B of geometers, or instead of a problem, demanding only one self-evident postulate and one equally self-evident definition, these eight syllogisms were constructed of propositions of probable or contingent truth: not only would the process be greatly protracted, but, at every step, some new objection might be taken, which would give birth to a new brood of syllogisms, and these might be multiplied almost *ad infinitum*. Such was the prolific study of the schoolmen, whose understandings were perpetually obscured with syllogistic fog, and whose tongues were kept for ages, by such a logic, in unceasing rotatory motion.

vial, it ought to be retained, for its tendency to expand or invigorate the intellect. To this, it would seem sufficient to reply, that the syllogistic logic produced no such beneficial result on the minds of those, who formerly cultivated it to the greatest extent; and that the experience of the middle ages will for ever demonstrate its futility, as an element of rational and intellectual education. But it may be questioned, whether, in the present state of science and literature, it is capable of improving the mental faculties, even to the limited extent, which it may be supposed to have attained, in another and very different stage of moral, literary, and philosophic intercourse. It has been acutely remarked by Dr. Reid, that the ancients, in their logical researches, attended only to *categorical* propositions, which have one subject, and one predicate, and of these, to such only, as have a general *term* for their subject; whereas the moderns have attended chiefly to *relative* propositions, which express a relation between two subjects, and these subjects always general *ideas*[6].

[6] See Chart and Scale, vol. i. p. 113, 114.

Now, it deserves consideration, whether, by this transfer of categoric to relative propositions, the entire value and propriety of the syllogistic logic has not been set aside on all topics of probable and contingent reasoning. The "dictum de omni et de nullo," on which this whole logic is based, does not apply to the agreement or disagreement of *ideas*. It can serve only to elucidate propositions which are strictly categorical, which have one subject, one predicate, and which have for their subject, a general *term*. It cannot be brought to apply to propositions when compared with others, whose subjects are general and correlative *ideas*. Of such propositions, as Wallis has remarked, the test should consist in another axiom — "Quæ conveniunt in eodem tertio, conveniunt inter se."

And this difference may serve to explain the extreme puerility of all the questions which can now be examined by the scholastic logic. It can be applied only to the most simple and categorical reasoning —to reasoning which carries with it its own evidence, and which approaches the simplicity of Euclid. As soon as any ques-

tion becomes complex or obscure, demanding the scrutiny and comparison of our thoughts, its utility, as a test, is destroyed; it can only add to our difficulties, by contracting our attention to the terms, instead of expanding it over the whole compass of the reasoning. It is, in fact, incapable of measuring such modern inquiries; and hence it was, that Locke, though he imperfectly understood the *rationale* of the ancient logic, perceived enough of its deficiency, to enable him to reject its claims, as an instrument for enlarging, regulating, or improving the human understanding.—But why should we invoke the spirit of the dead, or insult the corpse of that mighty monster, who once bestrode the world, "like a Colossus?" The scholastic logic has long since lost its sway. It now serves only "to point a moral or adorn a tale." It has sweetened the pleasantries of Goldsmith, and heightened the satire of Swift.

In offering these observations, it is not my object to make any formal or preconcerted attack on that system of logic, which is still taught at Oxford; but merely to justify the

principles of the work, which I have been requested to revise. It has long been my firm conviction, that the principles of this work are built on a basis, which can never be shaken; and that, when ancient prejudices have passed away, its merits will be felt and acknowledged, even by the *Alma Mater* of its author.

Be this as it may, the work now comes before the public, in an enlarged and improved form, as a practical comment on the inductive logic. In this respect, its merits were widely acknowledged on its first appearance. It is well remembered, that Mr. Burke called on Dr. Tatham, soon after its publication, and expressed himself in the highest terms of approbation. The letters of Dr. Reid and Dr. Doig[7] will speak for themselves. The Editors of the Encyclopædia Britannica, in the article "Logic," thus announce their obligation, and their opinion of its merits:—"This chapter is almost wholly taken from Dr. Tatham's 'Chart and Scale of Truth,' a work, which,

[7] See Appendix.

notwithstanding the ruggedness of its style, has so much real merit, as a system of logic, that it cannot be too diligently studied by the inquirer, who would travel by the straight road to the temple of science." These observations, which are principally applicable to the first volume, (in which the various kinds of truth relating to human science are explained) may also be partially transferred to the second, which relates exclusively to theology.—Theologic truth, according to Dr. Tatham, rests originally on our belief in the Divine veracity. Faith is the basis of its logic, but its external and internal evidences form the proper subjects of human reasoning and inquiry. He views it with Bacon—"tanquam portus et sabbatum humanarum contemplationum omnium." Whilst he allows it is more distinct and separate in the nature of its truth, than any of the human arts or sciences are from each other, and confesses the informality of its logical arrangements; he appropriately represents Theology, as their queen and potentate, to whom they all respectively subserve and

minister—" The virgins that be her fellows do bear her company."

Considered in its general character and design, " The Chart and Scale of Truth" may be viewed, therefore, as a practical and continuous comment on the Novum Organum of Bacon. It is its leading object to establish the value of the inductive principle, as opposed to the syllogistic. The one proceeds on the analytic, the other on the synthetic method. It is almost needless to observe, that whilst synthesis prevails in the works of nature, analysis should prevail in the studies of nature. All the works of nature and of art to be investigated with precision, require to be analyzed with precision, before they can be understood.

It is proper however to remark, that, in some of the strictures on Bishop Lowth, on the rules of biblical translation, and on the comparative value of the Hebrew and the Septuagint, many readers may be found to differ from the author. These are topics open to freedom of discussion, and, on which, some of the best and most learned men have entertained different opinions.

But, whatever be the agreement or disagreement of the reader on these secondary topics, the Editor feels no uncertainty, as to the general decision, on the high and original value of the entire work,—that it is one of those permanent productions, which will always retain its rank and station, in the library of the learned theologian. For himself, he deems it only an act of justice to acknowledge, that he owes much of the formation of those analogical studies, which have been his chief occupation through life, to the early study of this original treatise, in conjunction with the kindred works of Butler, Brown, Reid, and Stewart.

APPENDIX TO THE MEMOIR.

I.—LIST OF THE PUBLICATIONS OF THE AUTHOR.

1778. Essay on Journal Poetry, 8vo.
1780. Twelve Discourses, introductory to the Study of Divinity.
1789. The Bampton Lectures. The first vol. appeared in 1790, the second in 1792.
1790. A Remonstrance to the Revolution Society.
1791. Letters to Edmund Burke, 8vo.
1792. A Sermon before the University on Nov. 5.
1793. A Sermon suitable to the Times.
1798. Letter to Mr. Pitt on the National Debt.
1802. Plan of the Income Tax.
1807. Address to the Members of Convocation on the Statute for Public Examinations.
1811. Address to Lord Grenville on Abuses in the University.
1813. Oxonia Purgata.
18—. Oxonia Illustrata, treating of the Architectural Improvements of Oxford.
1816. Observations on the Scarcity of Money, and its Effects.

II.—DR. REID'S LETTER TO DR. TATHAM.

REV. SIR, Oct. 1791.

SOME time ago, Dr. Doig of Stirling sent me your "Chart and Scale of Truth," as a present from the author. My best acknowledgments are due for so unexpected a testimony of your regard, and for the honour you have done to the short account of Aristotle's Logic. As I wished to read your book before I returned my thanks for the present, I have now also to thank you most cordially for the pleasure and instruction I have had by it. You call it very justly a new logic, and I think it is a sound logic; tracing distinctly the different regions of human knowledge, and pointing out the first principles, the kind of evidence and method of reasoning proper to each. I shall recommend it to our Professor of Logic, who, I doubt not, has the candour and the good sense to discern its merit, and will have the opportunity of making it known to many. Such a work might be expected from so able a disciple and admirer of Lord Bacon. I hope it will teach philosophers to give more attention to the instructions of that great reformer in philosophy, than they have done. Newton understood his merit, and traced with success the path he had pointed out; you will lead many others to do the same. That you may not understand this, as an unmeaning compliment, will you forgive me, Rev. Sir, mentioning one thing, wherein I do not perfectly go along with you? After giving just and liberal praise to the great man last mentioned, you seem to find fault with the forces he has introduced to account for the planetary motions, as things, which, without his intention, have given a handle to materialists, and which he

should have held forth only, as an hypothesis, for the benefit of calculation, and not as really existing in nature. I am humbly of the opinion, that, of all the followers of Bacon, Newton has most closely followed his rules, without deviating to the right hand or to the left. The two first books of the "Principia," are properly called "Mathematical principles of natural philosophy." The propositions are mathematically demonstrated, and nothing but mathematical principles are assumed, except the three laws of motion, which, as physical principles he took to be sufficiently confirmed by induction, by those who went before him. The third book is the application of those mathematical principles to physical astronomy. The rules of philosophizing laid down in the beginning of the third book, are, I think, as good a compound, as can be given, in so few words, of the *Novum Organum*. The phenomena are facts, and the propositions are deduced from those facts, by reasoning according to the rules laid down. The sum of this physical astronomy is, that by reasoning from facts, according to his rule of philosophizing, he extends to the heavenly bodies two laws of nature, or forces, which were before allowed to obtain universally in earthly bodies. These are the *vis inertiæ* and the *vis gravitatis*. As to the handle given by these forces to materialism, is it not equally strong, when they are imputed to earthly bodies as when to the heavenly? If this be so, Galileo, Torricelli, Wren, Wallis, Huygens, &c. are the persons chargeable with giving this handle, and Newton only left it as he found it. But, to consider the forces themselves;—the *vis inertiæ* Newton indeed thinks to be inherent in matter; but it means no more but passiveness, that matter perseveres in any state, in which, it is put, till by some impressed force it be made to change it. This seems to me, to be so far from giving a handle to materialists, that it is subversive of their whole system. A consistent materialist must hold, that every animal

on the face of the earth, and perhaps every vegetable, contradicts this law. Yet if it be not true, Newton's system is a rope of sand.—Perhaps it is the *vis gravitatis* that gives the handle. This Newton holds, not to be inherent in matter, but an impressed force; and he must necessarily do so, to be consistent; for if it were inherent, it would be evidently contradictory to the *vis inertiæ*. Matter continues to be inert, even when its state is constantly changed by the force of gravity; being passive, it yields to every impression. As all action implies an agent, an impressed force implies some being that impresses it, either body or mind. If the impression be made by a body, that body must also have had its force impressed, and the chain of bodies impressed and impressing must end in some being, which has an inherent power of impressing motion upon matter, and, consequently, which is not matter. This, I think, is the fair conclusion from Newton's doctrine of gravity, the conclusion which he saw and intended; and it appears to be as unlucky a handle for the materialist as even the *vis inertiæ;* indeed, these are so connected, that, though the *inertia* of matter does not imply its gravity, the impressed force of gravity implies its *inertia*.

Nor can I help thinking, that Newton had reason to hold forth his system, as the true physical principles of astronomy, and not barely as an hypothesis, by which the phenomena might be solved, and calculation assisted. He had learned from Bacon, to disdain as the fictions of men, hypotheses whose truth is not legitimately proved by induction from fact. This appears from his second law of philosophizing. If the heavenly bodies be inert and inactive, every change of their state from rectilineal motion, necessarily implies an impressed force, and an uninterrupted change implies a force uninterruptedly impressed. That such a force really exists in nature, and is not an arbitrary hypothesis, appears to be a

necessary conclusion, from these two premises; to wit, that matter is inert, and that the heavenly bodies move in curve lines. It is impossible to evade this conclusion, unless there be in nature a power of giving motion to matter, which is neither in the matter itself, nor external to it. There seem to me to be two ways, in which, Newton's system may be fairly, I do not say successfully, assaulted: one way is, by showing that his rules of philosophizing are not, in the present state of human nature, the only foundation, on which, a true system of physical astronomy can be raised. For this, Bacon, as well as Newton, is answerable, as the rules are the same in both. The other way is, by showing that his conclusions are not justly deduced from the phenomena of the heavens, according to those rules. For this, Newton alone is answerable.—He seems likewise to me, to have just stopped, where a natural philosopher ought to stop. Having traced the chain of natural and dependant causes, as far as he was able, and shown, that the highest link he was able to reach, still implied a higher, which must be either a natural and dependant cause, or the finger of God.

But your opinion of Newton's system does not affect your "Chart and Scale of Truth," nor does it affect the great regard and esteem, with which, I have the honour to be,

Rev. Sir,

Your very much obliged humble servant,

THOMAS REID.

III.—DR. HAYGARTH'S LETTERS TO DR. TATHAM.

REVEREND DOCTOR, Bath, June 22, 1807.

THE just praise, with which, you have honoured the character of the Rev. Dr. Bateman in a late publication, could not fail to afford high gratification, to all his scholars. It has revived a wish, which I have often entertained, that his Latin and Greek phrase books might be published. They were composed, you know, of notes upon classical authors, to explain difficult and illustrate beautiful passages. Being the work of many years, by a man of uncommon learning, might not a monument be thus erected, which would be highly honourable to the memory of so excellent a schoolmaster? Would not such a publication promote classical erudition, and afford very useful assistance to the upper boys of large schools?

I left Sedbergh school in 1759, and, soon after that period, my time and study have been chiefly employed on other, particularly, on medical subjects, so that I should be very ill qualified to publish such a work. Besides, mine are much less perfect, than future copies, as you may remember, that Dr. Bateman was constantly adding new annotations to his phrase-books. Your departure from Sedbergh was probably at least ten years later. Are you in possession of good copies of them, or can you find any, among your friends at Oxford?

If you approve this proposal, you will undoubtedly require, that the business should be executed, in a proper manner. For this purpose, may it not be necessary to engage a man of learning; first, to correct all the

numerous schoolboy *errata*, which the very best copies may probably contain, by a careful reference to all the original passages which are quoted? second, to make an index of all the authors, referring to all the passages explained in the order of their works, so that each phrase may be found, by the classical reader, without difficulty? I prevailed upon a young friend of mine to form such an index to my Latin phrase-book. Should not these phrase-books, with such corrections and indexes, be published in a small and cheap form, so as in both senses to fit a schoolboy's pocket?

Can you recollect any Sedbergh scholar, who would be able and willing to undertake the task of editor?

No attempt will be made to accomplish this proposal, without the approbation of at least one of Dr. Bateman's sons. I have already desired my friend, John Dawson, to communicate this plan to the Rev. S. Bateman, with whom you may probably be better acquainted than I am. With Col. Bateman I had become more intimate at Bath, but he is returned to India.

This address from an utter stranger might require many apologies. But my hope that you will pardon the liberty I have taken, is in the desire we mutually feel to advance the honour of our highly respectable schoolmaster, and to promote useful knowledge.

I have the honour to be,

Your very respectful and faithful servant,

JOHN HAYGARTH.

IV.

SIR, Oxford, Aug. 13, 1807.

On my visit to this place, it would have given me great pleasure to obtain a personal conference with you, on the business explained in the letter, which, though a stranger, I took the liberty to address you. Your full approbation of my proposal gave me great satisfaction. I have not yet received any answer to the request sent through Mr. Dawson to the Rev. S. Bateman. As he has the honour to be your friend, your recommendation may probably have much influence. I cannot think, that he can have any objection, to the publication of the Latin and Greek phrase books of his very learned and respectable father, if executed in a proper manner.

As I understand that you sometimes visit Bath, it would give me much satisfaction to have the honour of seeing you there, when we might more fully discuss this business.

I have the honour to be, with great respect,
Your obliged and faithful
J. HAYGARTH.

V.—DR. DOIG'S LETTER TO DR. TATHAM.

REV. SIR, Stirling, Aug. 16, 1794.

As Mr. Ireland, a native of this country and an apothecary in your city, is returning directly to Oxford, I could not deny myself the pleasure of writing you a few lines by that conveyance. Perhaps you may recollect to have seen in Oxford, towards the end of June, 1791,

two Caledonians of a very different aspect; the one, a country squire, with rather a larger stock of erudition, than usually falls to the share of that species of beings on your side the Tweed; the other, a smatterer in Greek and Latin, and some other ancient languages. The former was a Mr. Ramsey, and the latter a Dr. Doig. The remembrance of your attention and civilities to my fellow-traveller and myself upon that occasion has brought this trouble upon you, which is, I beg leave to assure you, a tribute of the most sincere gratitude. Why this tribute was not paid sooner is another question. The reason was, the want of a commodious channel of conveyance, and, perhaps, because I could not think of troubling you with a letter, by the ordinary course, without having something to communicate of more importance than a mere compliment.

I spent an evening about a fortnight ago with your correspondent, Dr. Reid, of Glasgow, who still speaks in very high terms of your Bampton system of logic, and heartily wishes to see it generally adopted. He is a very old man, much bowed down and very deaf, but still enjoys a great share of health and vigour; and, as far as I can pretend to judge, the same strength of mind he did forty years ago.

You may probably have forgot, that when I had the honour of being with you at Oxford, you prescribed me, by way of task, to read Aristotle's Politics. This task I have performed most faithfully, and have, I think, reaped both pleasure and profit from the operation. That treatise is little known here. I fear the Egyptian priest's stricture upon the Greeks, recorded by Plato, will be too long applicable to my countrymen.

About two years ago (8vo. 1793), there was published a trifle of mine, under the title of "Two Letters on the Savage State, addressed to the late Lord Kaims." They were patronised by the late Dr. Horne, Lord

Bishop of Norwich, who died, however, before it was published. Lord Kaims and the other demi-christians here maintain, that once upon a time all mankind were in a state of savagism. I endeavour to controvert this article. If you will give me leave, I shall transmit you a copy of it the very first opportunity. I have likewise written a dissertation on the origin of the tribe of the Greeks called Hellenes, which was read before the members of the Royal Society, Edinburgh, and is published in the third volume of their Transactions. A copy of it shall accompany

"Beatus Fannius, ultro
Delatis capsis et imagine."*

Mr. Ramsey is in tolerable good health and spirits. I believe he wrote to you by the same conveyance. He has not yet lost all hopes of seeing the Head of Lincoln College at his sweet villa, and regaling him with his various and delicious fruits, the produce of the neatest and most diversified garden in this country. In this case, I too should flatter myself with the hopes of an *en passant*.

Your goodness will excuse this enormously long scrawl, which shall end where it should have begun, that is, with congratulating you on your preferment, and sincerely wishing you long life, good health, and high spirits to enjoy it, and begging you will rest assured, that I am,

Rev. Sir, with the greatest respect,

Your most obedient humble servant,

DAVID DOIG.

* This alludes to a poem published (4to. 1796) by the Doctor, entitled, "Extract from a Poem on the Prospect of Stirling Castle." —*Editor.*

VI.—DR. GEDDES' LETTER TO DR. TATHAM.

[The following short letter from Dr. Geddes, is too characteristic of the writer to be omitted.—*Editor*.]

REV SIR, London, Jan. 21, 1794.

I HAVE just now received your very polite letter of the 18th of last December, with the acceptable present of your "Lectures." I was not before a stranger to them, although my scanty purse had not been able to purchase them. I have read that part which you point out with much pleasure. We differ on some points: but I trust we shall always differ, as liberal and honest men ought to differ. To delineate the "Chart of Truth" is an arduous task, which few have accomplished so well as yourself; but still, I fear, Pilate's query will occur, τι εστιν αληθεια. Relative truth is, I hope, not uncommon, but absolute truth is, perhaps, unattainable in this vale of tears. Be that as it will, your labours are extremely laudable, and must class you among the first scholars of the present age. Your name in the list of my subscribers is a great acquisition, especially at a time when bigotry, and something worse than bigotry, is trying to injure me. If Cooke have no copy let me know, that one may be sent hence. I have ordered my two last publications to be presented to you, and am, with very great regard,

Rev. Sir,

Your obliged humble servant,

A. GEDDES.

THE

CHART AND SCALE OF TRUTH,

BY WHICH TO FIND THE CAUSE

OF ERROR.

GENERAL INTRODUCTION.

SECT. I.

Of Truth in general.

WISDOM is a term which has a more limited and a more extended signification. Some of the ancient philosophers used it to express only a superior skill or proficiency in the arts[1]; others raised it to the comprehension of the speculative sciences, whilst they excluded from its meaning all practical virtue, which, in their mistaken

[1] Τὴν δὲ σοφίαν ἐν ταῖς τέχναις, τοῖς ἀκριβεστάτοις τὰς τέχνας ἀποδίδομεν, οἷον Φειδίαν, λιθουργὸν σοφὸν, καὶ Πολύκλειτον, ἀνδριαντοποιόν· ἐνταῦθα μὲν οὖν οὐθὲν ἄλλο σημαίνοντες τὴν σοφίαν, ἢ ὅτι ἀρετὴ τέχνης ἐστίν.—Aristot. Ethic. Nicom. lib. vi. cap. 7.

estimate of the value of things, was to confer upon it, as they thought, the highest honour[2]. But others, anticipating the superior dignity to which it was in future to be exalted, gave it a construction more enlarged and liberal; allowing it to embrace every virtue both of the heart and understanding, and making it to comprehend all moral as well as intellectual good[3].

In this more comprehensive and exalted sense, wisdom was applied by the most illustrious of her children, who in his animated and almost enthusiastic descriptions, has adorned this queen of virtues with a splen-

[2] Εἶναι δέ τινας σοφὰς οἰόμεθα ὅλως· ὐ κατὰ μέρος, ὧδὲ ἄλλό τι ἢ σοφοὺς, ὥσπερ Ὅμηρός φησιν ἐν τῷ Μαργείτῃ,

Τὸν δ' ὔτ' ἄρ σκαπτῆρα θεοὶ θέσαν, ὔτ' ἀροτῆρα,
Οὔτ' ἄλλως τι σοφόν.

ὥστε δῆλον ὅτι ἡ ἀκριβεστάτη ἂν τῶν ἐπιστημῶν εἴη ἡ σοφία. δεῖ ἄρα τὸν σοφὸν μὴ μόνον τὰ ἐκ τῶν ἀρχῶν εἰδέναι, ἀλλὰ καὶ περὶ τὰς ἀρχὰς ἀληθεύειν. ὥστ' εἴη ἂν ἡ σοφία νοῦς καὶ ἐπιστήμη, καὶ ὥσπερ κεφαλὴν ἔχουσα ἐπιστήμη τῶν τιμιωτάτων. ἄτοπον γὰρ, εἴ τις τὴν ἐπιστήμην πολιτικὴν, ἢ τὴν φρόνησιν σπουδαιοτάτην οἴεται εἶναι, εἰ μὴ τὸ ἄριστον τῶν ἐν τῷ κόσμῳ ἄνθρωπός ἐστιν —— Aristot. Ethic. Nicom. lib. vi. cap. 7.

[3] Πᾶσα ἐπιστήμη χωριζομένη διαικοσύνης καὶ τῆς ἄλλης ἀρετῆς πανουργία, ἀλλ' ὐ σοφία, φαίνεται.—Plato in Menex. § 19.

Princeps omnium virtutum est illa sapientia quæ σοφίαν Græci vocant.—Cic. de Off. lib. i. cap. 43.

dour and magnificence of diction peculiar to himself, and celebrated her in terms of the sublimest eulogy:—"She is the brightness of the everlasting light, the unspotted mirror of the power of God, and the image of his goodness[4]." And the same extensive and divine prerogative was given to her by one who was wiser than Solomon, who was himself both the architype and exemplar of all good, "Christ the power of God and the wisdom of God[5];" whose evangelical dispensation divides this universal virtue into two cardinal collateral and co-existent branches, truth and charity[6], the foundation and the consummation of all things, corresponding to the two constituent parts of human nature, the intellect and the will, those singular and

[4] Wisdom, vii. 26.

[5] 1 Cor. ii. 24, and Luke, iii. 52.

[6] Ὁ λόγος σὰρξ ἐγένετο—καὶ ἐθεασάμεθα τὴν δόξαν αὐτῦ, δόξαν ὡς μονογενῦς παρὰ πατρὸς, πλήρης χάριτος καὶ ἀληθείας.—John, i. 14.

Ἡ χάρις καὶ ἡ ἀλήθεια διὰ Ἰησῦ Χριστῦ ἐγένετο.—John, i. 17.

Ἐν τύτῳ γνώσονται πάντες ὅτι ἐμοὶ μαθηταί ἐστε, ἐὰν ἀγάπην ἔχητε ἐν ἀλλήλοις.—John, xiii. 35.

Χάρις has a more extensive sense than ἀγάπη, and includes its meaning—Gratia, beneficium, sed in ea significatione quâ ponitur pro amicitia seu benevolentia fratrum geminorum. See Steph. Thes. Ling. Gr.

supereminent distinctions by which man becomes the subject of a religion which will make him wise unto salvation.

There is no expression by which our Lord presents himself and his holy gospel to our apprehension with a more intense devotion, or which he enforces with a stronger emphasis, than that of truth. "Sanctify them through thy truth. Thy word is truth[7]." He joins it with life, as connected by a close and necessary tie, and as constituting the way which leads immediately to the end of his religion. "I am the way, and the truth, and the life; no man cometh to the Father, but by me[8]."

Descended from a celestial parent, and allied to a sister of such purity and perfection, this branch of wisdom is a subject at all times most deserving our cultivation and regard, for its own sake, and more especially for the sake of Him who had all truth, who, "from his good-will to men," hath given us

[7] John, xvii. 17. [8] John, xiv. 6.

those sublime and supernatural portions of it, which are most accommodated to our necessities, and who, "knowing what is in man," hath conveyed them to us in a manner by which we can receive and improve them to our best advantage. She is the brightest object and ornament of the understanding, as her sister Charity is of the heart.

To open this vast and important argument of truth in general, by a formal, and what is called a logical definition, would betray both ignorance and presumption, and promise little success in the conclusion. Aristotle indeed is said to have reproached Democritus as a teacher and philosopher, because he dealt in similitudes and analogies, and did not define and dispute in form[9]: and, under the sanction of his authority, the method of defining has been attempted by some philosophers, perhaps with more confidence than success[10].

Truth is of the nature and essence of God, like him incomprehensible in the whole, and

[9] Bacon. De Augm. Scient. lib. vi. cap. 2.

[10] How imperfect and illogical is that of Wollaston! Def. 2. Sect. 1.

ineffable in its sublimer parts. It is more than the other attributes, it embraces and comprehends them all. For these and other reasons it cannot admit of an adequate definition. And who in the beginning of his researches, would presume to define that, which, after all his longest and best-conducted labours, he can only hope partially, and often imperfectly to comprehend; and of which an essential part can neither be directly expressed, nor directly understood[11]? We may indeed esteem ourselves highly favoured by the Author and Finisher of all truth, if at the end of our researches, we shall be able any way to understand, in order to apply a few

[11] See Bp. Browne's "Divine Analogy," p. 84, who cites these remarkable words from Aquinas: "Intellectus noster, eo modo apprehendit eas (perfectiones), secundum quod sunt in creaturis, et secundum quod apprehendit, ita significat per nomina."

"What faculties other species of creatures may have to penetrate into the nature and inmost constitutions of things, we know not. This we know, and certainly find, that we want other views of them besides those we have, to make discoveries of them more perfect. The intellectual and sensible world are in this perfectly alike, that the parts which we see of either of them hold no proportion to that we see not; and whatsoever we can reach with our eyes, or our thoughts of either of them, is but a point in comparison of the rest."—Locke, Hum. Und. book iii. chap. 3.

particular portions and detachments of it, and to guard them from error and corruption.

When, upon a solemn occasion, the question was put to our Lord by a Roman governor, "What is truth?" though it was what he fully and perfectly knew, and what he came purposely and professedly to teach[12], he did not define it. He knew that definition was never the best method of instruction, and that, in its common use and application, it was seldom the friend of truth. Philosophically viewed, words do not constitute truth. They are only the vocal instruments by which it is communicated, or the written signs by which it is recorded. The latter are the daughters of earth, the former the sons of heaven. By an inquirer therefore things are to be examined, rather than words defined. By a teacher, things are to be conveyed by words in some form or other, which are doubtless to be explained to the understanding, if not sufficiently understood before. But explanation is one thing, and definition

[12] Καὶ εἰς τοῦτο ἐλήλυθα εἰς τὸν κόσμον, ἵνα μαρτυρήσω τῇ ἀληθείᾳ. Πᾶς ὁ ὢν ἐκ τῆς ἀληθείας, ἀκούει μου τῆς φωνῆς.—John, xviii. 37.

is another. Explanation is the first office of a teacher; definition, if it be good, is the last of the inquirer, after the truth be found; and is then the most advantageously employed by the teacher, when his previous instructions have prepared him for its possession.

But let us mark the conduct of the teacher professedly sent from God. Himself the fountain and conductor of truth, he is represented in the sacred oracles as the sun[13], the fountain of light, and as the day-spring from on high[14], the harbinger of light: and of these apt similitudes, familiar to all even without an explanation, which had been employed by Solomon in some of his sublime portraits of wisdom, He often availed himself, expressing truth by the significant emblem of "light and the light of life."

Whatever opinion therefore we may entertain of the doctrines and tenets of these two ancient philosophers, from the example of One who was wiser and "greater" than they, we may venture, in the present instance, to prefer the native of Abdera to the

[13] Psa. lxxxiv. 11. Mal. iv. 2. [14] Luke, i. 78.

master of the Lycæum: and, instead of instituting the present investigation, by vainly attempting to define, it may be safer to follow the example of Him, who, in manner as well as in matter, was infinitely above the Stagyrite, and to avail ourselves of this similitude, as a fit illustration of truth in general.

God is supremely a Mind, and truth is consequently an attribute of mind.

To the sun "declaring at his rising a marvellous instrument[15]," He, "by whom all things were made[16]," hath delegated the power of enlightening the material system; whilst he hath reserved to Himself the office, which is more suitable to his nature, of giving light and knowledge by his eternal truth to the mind of man. But, whether he act through the instrumentality of his creatures, or more immediately from himself, he is uniform and consistent in his operations, so that one part of his divine economy is always illustrative of another. As the sun sheds his light over the material creation to

[15] Eccles. xliii. 2. [16] John, i. 3.

be apprehended by the eye, truth is the light shed down from heaven to be apprehended by the intellect, given to illumine every subject natural and moral, corporeal and spiritual, so far as they are qualified by their different natures to convey it to the human mind; or rather, perhaps, so far as the human mind is qualified to receive it from them. For the difficulty of truth does not exist so much in the subjects, as in ourselves; and truths, which are the strongest in themselves, may sometimes shine upon our minds with the weakest force[17].

[17] Ἴσως δὲ καὶ τῆς χαλεπότητος ὕσης κατὰ δύο τόπους, οὐκ ἐν τοῖς πράγμασιν, ἀλλ' ἐν ἡμῖν τὸ αἴτιον αὐτῆς. ὥσπερ γὰρ καὶ τὰ τῶν νυκτερίδων ὄμματα πρὸς τὸ φέγγος ἔχει τὸ μεθ' ἡμέραν, οὕτω καὶ τῆς ἡμετέρας ψυχῆς ὁ νοῦς πρὸς τὰ τῇ φύσει φανερώτατα πάντων.—Aristot. Metaph. lib. ii. cap. 1.

De causa difficultatis in veritatis cognitione discrepantes sunt sententiæ: alii enim res ipsas hujus difficultatis causam esse, alii nos ipsos esse censent. Heraclitus et Academici omnes res fluxas et caducas nullamque omnino stabilem et immutabilem esse putarunt, et in rebus ipsis difficultatem possuerunt. Alii, omnem veritatis difficultatem in imbecillitate nostri intellectus habuerunt, hisce nisi argumentis: " Siqua res esset cognitu difficilis, ea esset talis respectu cujuscunque intellectus; sed ratione divini Intellectus nulla res sit cognitu difficilis." Et " Quicquid per se tale est, id ea re non est difficile tale." Sed intermedia sententia recipienda est, Quod difficultas cognoscendæ veritatis partim ad nos, partim ad res ipsas referenda sit.—Joan. Ludov. Havenreuterus Com. in Aristot. Metaph. lib. ii. cap. 1. 8vo. *Francf.* 1604.

Thus from the Divine mind, truth becomes an attribute of the human, and must be in proportion to the mind in which it is; and, from a comparative view of these different minds, so far as we can judge of them, however imperfectly that may be, assisted by this scriptural similitude of light, we may hope to arrive at a general conception of truth, as it relates to man.

In the Divine mind, which pervades and comprehends all things, truth is universal (allowing for the inadequate comprehension of our ideas and words when applied to the Deity); in the human, which, though it be capable of enlargement from the body, and can reach to distant times and places, is not of all times and places, it is partial; as the light of the sun, by the rotation of the earth, is to the human eye. For, whereas our minds are only in particular places at particular times, it is the sole prerogative of the Divine to be present in all places and at all times. In the Divine mind, which is separate and distinct from body, it is immediate and intuitive; in the human, which is joined

by a mysterious union with the body, it is mediate and progressive, advancing from the information of the senses through the operations of the intellect, like the gradual dawn of light. In the Divine mind, which is simple and uncompounded, it is of equal force; in the human, which is composed of different faculties adapted to different subjects, it is of different degrees and kinds, according to the difference of its faculties and the subjects presented to them; as the light is varied into many degrees of shade and colour, according to the different media through which it passes. In the Divine mind, which is pure, it is unerring and infallible; in the human, which is corrupt, it is subject to error, as the pure light of the sun is darkened and obscured by the grosser exhalations of the earth. But as the Divine mind is incapable of change, so also hath he formed the human the same in all men and nations, in reference to general truths and faculties; so that whatever be the imperfections or shades of any truth as relative to men, it is essentially immutable, that is, absolute and opposite to falsehood, as "darkness to light, and light to darkness."

Thus of truth, which, in its omniscient fountain, is universal, immediate, equal, and infallible, from the infirmity and inferiority of their nature, men are only blessed with a partial, progressive, various, though immutable ray, which is obstructed by passions, prejudices, habits and vices, the causes of error, as clouds and vapours obscure the sun. Yet partial and imperfect as it is, truth is the greatest gift which God could bestow, or man receive—but it is not bestowed on us, even thus partially and imperfectly, on unconditional terms. It is hidden in darkness, and involved in difficulties, intended like all the other gifts of heaven, to be sought and cultivated by all the different powers and exertions of human reason.

The love of truth is accordingly one of the strongest passions of the mind, a stimulus[18] which prompts it incessantly to its sublimest exercise; and the investigation of its various

[18] Ὄρεξις διανοητική, ἧς τὸ εὖ καὶ κακῶς, τὸ ἀληθὲς καὶ ψεῦδος. —Aristot. Ethic. Nicom. lib. v. cap. 2. ᾠθὲν ἀνθρώπῳ λαβεῖν μεῖζον, ἢ χαρίζεσθαι Θεῷ σεμνότερον ἀληθείας. —Plutarch.

kinds, whether they rest in contemplation[19], are applied to action[20], or operate in effect[21], is the most honourable employment of human life. This honour, to which all who have leisure and opportunity should ambitiously aspire, is enhanced three ways; by the utility of the truth in question, by the assiduity and ability employed to overcome the difficulty of the search, and by the willingness with which, when found, it is received and adopted; forming together an exalted union of intellectual and moral virtue. One, who was the most highly honoured of earthly potentates, could withdraw from the splendour of his riches and the glories of his crown, as a candidate for the higher honour of cultivating this wisdom, and of ministering in all her provinces. "The glory of God," says Solomon, "is to conceal a thing; and the honour of the king to search it out[22]."

Conscious however of the fallibility which attends the best exertions of human reason,

[19] Ἐπιστήμη. [20] Πρᾶξις.

[21] Ποίησις.—Aristot. Ethic. Nicom. lib. vi. cap. 3, 4.

[22] Proverbs, xxv. 2.

sensible of the darkness under which the Author of all truth hath left some of its most interesting and important parts, and convinced withal, that as the search of it is the duty, so the invention will be the happiness of man, the honest and ingenuous inquirer will enter upon the task with humility, with diligence, with desire, and all the best affections of heart and understanding, with hope, not unmixed with fear. There is but one path to truth, whereas error is open to a thousand ways, and is prepared, as an enemy in ambush, on all occasions, to turn him aside from the direct and successful road.

Sect. II.

Of Mind in general.

THE mind of which truth is an attribute, is not easily made the object of its own view and contemplation. By our consciousness, which is the first ground of judgment, incapable of being resisted or evinced by reason, aided by reflection, we are partially informed of the motions, capacities, and operations of that invisible agent; which, though removed from external sense and abstracted from common apprehension, has been analyzed and arranged in its faculties both by ancient and modern philosophers.

Taken in its largest comprehension, as the knowledge of abstract and separate substances, Aristotle raises the philosophy of mind above all other parts of learning. He assigns to it the investigation of the principles and causes[1] of things in general, and ranks

[1] Δεῖ γὰρ ταύτην τῶν πρώτων ἀρχῶν καὶ αἰτιῶν εἶναι θεωρητικήν.—Aristot. Metaph. lib. i. cap. 2.

it not only as superior, but also as prior, in the order of nature, to the whole tribe of arts and sciences.

But "what is first to nature is not first to man." Nature begins with causes which produce effects. Man begins with effects and by them ascends to causes. Thus all human study and investigation proceed of necessity in the reverse of the natural order of things, from sensible to intelligible; from body, the effect; to mind, which is both the first and final cause. Now physic, being the name given by the Peripatetic to the philosophy of body, from this necessary course of human studies, some of his interpreters[2] called that of mind metaphysic[3], implying also by the term, that its subject, being more sublime and difficult than any other as relating to universals[4], the study of it would

[2] Alexander and Philoponus.

[3] Τῶν μετὰ τὰ φυσικά. Cujus inscriptionis hæc ratio est, quod in hoc opere ea tractentur quorum theorea posterior est doctrinæ naturali saltem quoad nos, qui a corporum cognitione rerumque caducarum, in substantiarum immaterialium atque immortalium contemplationem provehimur.—Du Val. Synops. Doctr. Peripat.

[4] Σχεδὸν δὲ καὶ χαλεπώτατα γνωρίζειν τοῖς ἀνθρώποις ἐτὶ

come most properly and successfully after that of physics.

Taking it however in its natural order, as furnishing the general principles[5] of all other parts of learning, which descend from thence to the cultivation of particular subjects[6], Aristotle himself called this the First philosophy; but, as its subject is universal being[7], particularly mind which is the highest and most universal, he gave it also the appellation of the Universal Science, common to all the rest[8]: and, lastly, to finish his encomium of this First and universal philosophy,

τὰ μάλιστα καθόλυ· πορρώτατω γὰρ τῶν αἰσθήσεών ἐστιν.—Aristot. Metaph. lib. i. cap. 2.

[5] Ὑπολαμβάνομεν δὴ, πρῶτον μὲν ἐπίστασθαι μάλιστα πάντα τὸν σοφὸν ὡς ἐνδέχεται, μὴ καθ' ἕκαστον ἔχοντα ἐπιστήμην αὐτῶν. —Aristot. Metaph. lib. i. cap. 2.

[6] Aristot. Metaph. lib. ii. cap. 1, 2.

[7] Ἔστιν ἐπιστήμη τις, ἣ θεωρεῖ τὸ ὂν ᾗ ὄν.—Aristot. Metaph. lib. iv. cap. 1.

[8] Ἡ πρώτη φιλοσοφία καθόλυ——πασῶν κοινή.—Aristot. Metaph. lib. vi. cap. 1.

Ut physica tractat res naturales et corporeas quæ materia constant et forma; sic metaphysica res incorporeas et materiæ expertes, quæ divinæ dicuntur.—Agit, primo, de ente generatim ejusque principiis, essentia scilicet et existentia et partibus, sive de summis generibus entis et categoriis, ut res sint sive partes entis; deinde, de substantia spirituali sive spiritu, et, ultimatim, de Deo.—Est scientiarum universalissima. Disserit generatim per supremas causas et universales, primaque principia; unde nominata Sapientia et Prima Philosophia.—Du Val. Synops. Doct. Peripat.

he honoured it with the exclusive name of Wisdom[9].

And though in his celebrated partition of the sciences, Lord Bacon has made the distribution of metaphysics somewhat differently from that of the old philosophers, he treats this First philosophy with the greatest respect and attention, calling it the general root or stem out of which the other parts of learning shoot into separate branches, viewing it in hopeful prospect, when more philosophically cultivated, as supplying a collection of axioms and universal propositions appropriated to no particular science, but of more general application, considering it as the parent of them all, declaring it transcendent, and calling it with Plato, the science of things divine and human[10].

[9] Primus philosophus res speculatur quatenus abstractæ sunt, ab omnique nexu liberæ. Philosophia autem prima ea est quæ etiam sapientia dicitur, cujus ambitu omnes disciplinæ cinguntur. ἡ πολϋύμνητος σοφία, ἣν καὶ αὐτὴν ἁπλῶς ἐπιστήμην κλητέον, καὶ μάλιστα ἐπιστήμην, ut inquit Themist. in 1 Poster. Ipsa enim tenet et speculatur primarias rerum causas.—Budæi Comment. in Ling. Gr.

Ἡ σοφία περί τινας αἰτίας καὶ ἀρχάς ἐστιν ἐπιστήμη.—Aristot. Metaph. lib. i. cap. 1.

[10] De Augm. Scient. lib. iii. cap. 1. See Plato in Thæet. and Cic. 2, Tusc. Quæst.

Mr. Locke has taken the most useful part of this fruitful field of ancient erudition, which forms the most difficult as well as the sublimest subject of investigation, and has descended, with peculiar genius and ability and a native strength of mind, to the analysis of the Human Understanding. And if this great philosopher had followed the example of the learned Cudworth in his Intellectual System, and built his work upon the foundation of the ancient metaphysicians, he would have added much to its merit and perfection, and have greatly enhanced that fame which it has already made immortal.

The study of this universal science or philosophy of mind, the seat of all learning and the storehouse of all truth, is both the first in dignity and the largest in comprehension. It is a study both deep and difficult; a study which has been too much conducted on false principles founded only in imagination, too long perverted and obscured by the subtleties of logic, and too often terminating in something more injurious to truth than mere refinement and speculation. When founded however on just

observation and sound reflection, and conducted by rational investigation, it is a study which paves the way to a more scientific and successful cultivation of all the other parts of knowledge[11].

Waving for the present the further pursuit of this fundamental science, this first philosophy, in its use or in its abuse, through the volumes of ancient and modern metaphysicians, and without descending to a more minute investigation of the human mind, that imperfect emanation of the Divine, it will be sufficient for the purpose of these Lectures that its general functions have been distributed into three different provinces:—the theoretic, the practic, and the poetic mind[12], which I shall otherwise express by the intellect, the will, and the imagination.

[11] Τὸ μὲν πάντα ἐπίστασθαι τῷ μάλιστα ἔχοντι τὴν καθόλου ἐπιστήμην ἀναγκαῖον ὑπάρχειν. οὗτος γὰρ οἶδέ πως πάντα τὰ ὑποκείμενα.—Aristot. Metaph. lib. i. cap. 2.

[12] Πᾶσα διάνοια, ἢ πρακτική, ἢ ποιητική, ἢ θεωρητική.—See Aristot. Metaph. lib. vi. cap. 1, for the philosophical distinction between them.

Philosophia theoretica est cujus finis est veritatis nuda solaque contemplatio.

To each of these faculties, in their operation upon their respective objects external or

Philosophia practica cujus finis est praxis, id est actio interna, libera, ex electione profecta, et ad bonum directa.

Philosophia poetica cujus finis est poesis, id est effectio, seu actio externa.—Du Val. Synops. Doctr. Peripat.

Plato divided the mind into four faculties or affections, *νόησις, διάνοια, πιστις, εἰκασία*: intelligentia, cogitatio, fides, simulatio—correspondent to the different degrees of truth. *Νόησις ἐπὶ τῷ ἀνωτάτῳ, διάνοια ἐπὶ τῷ δευτέρῳ, τῷ τριτῳ πιστις, καὶ τῷ τελευτάτῳ εἰκασία.*—De Repub. sub fine. This distribution is not however so well calculated to distinguish the several kinds, as *πίστις* has a common relation to all the kinds.

Lord Bacon makes his general partition of learning as it relates to the memory, the imagination, and reason. "Partitio doctrinæ humanæ ea est verissima quæ sumitur ex triplici facultate animi rationalis quæ doctrinæ sedes est. Historia ad memoriam refertur, poesis ad phantasiam, philosophia ad rationem.—Neque aliâ censemus ad theologica partitione opus esse."—De Augm. Scient. lib. ii. c. 1.

And in the seventh book he refers morality to the will under the conduct of reason.

This distribution of our great philosopher and reformer of learning seems also to be imperfect; for reason is the general instrument of the mind common to all its faculties (and his words are "ex triplici facultate animi rationalis"), and common alike to all the kinds of truth or learning.

I have therefore preferred the distribution of the Peripatetic to those both of the Academic and English philosopher, as being more proper and distinct, and equally comprehensive; for under his division *διάνοια θεωρητική*, he classes all those parts of learning which do not belong to the other two. *Τρεῖς φιλοσοφίαι θεωρητικαὶ, μαθηματική, φυσική, θεολογική.*—Aristot. Metaph. lib. vi. cap. 1.

And for the same reasons I deem it much more just and philosophical than Locke's Division of the Sciences in the conclusion of his Essay.

internal, truth in general divides into special relations, or correspondencies; and the distribution of its several parts, forming the whole circle of learning divine and human, will be most naturally and philosophically made, according as they range under one or other of these general provinces of human intellect.

The universal science or philosophy of mind is the true foundation of the universal art or philosophy of logic, the organ or instrument, by which truth is to be found and cultivated in all different relations and correspondencies to the different parts or faculties of the mind, of which it is an attribute. And the general office of this logic or universal art is, first, to find and establish right principles; secondly, to institute a right method of reasoning correspondent to the principles; and, thirdly, to estimate the kind and value of the truth when found, whether it belong to the intellect, the will, or imagination.

Sect. III.

Of Principles in general.

THAT all truth of which the mind is capable, to whatever faculty it may relate, is derived from certain principles[1] or first and fundamental truths, which are the causes why other things are true, is a maxim older than the days of Aristotle, and in which all sound philosophers have necessarily concurred; since, by the contrary supposition, there could be no such thing as truth at all[2]:

[1] Πᾶσα διδασκαλία καὶ πᾶσα μάθησις διανοητικὴ, ἐκ προϋπαρχούσης γίνεται γνώσεως. Φανερὸν δὲ τοῦτο θεωροῦσιν ἐπὶ πασῶν. αἵ τε γὰρ μαθηματικαὶ τῶν ἐπιστημῶν διὰ τούτου τοῦ τρόπου παραγίνονται, καὶ τῶν ἄλλων ἑκάστη τέχνων.—Aristot. Analyt. Post. lib. i. cap. 1.

Οὐκ ἴσμεν δὲ τὸ ἀληθὲς ἄνευ τῆς αἰτίας. ἕκαστον δὲ μάλιστα αὐτὸ τῶν ἄλλων, καθ' ὃ καὶ τοῖς ἄλλοις ὑπάρχει τὸ συνώνυμον, οἷον τὸ πῦρ θερμότατον. καὶ γὰρ τοῖς ἄλλοις τὸ αἴτιον τοῦτο τῆς θερμότητος. ὥστε καὶ ἀληθέστατον τὸ τοῖς ὑστέροις αἴτιον τοῦ ἀληθέσιν εἶναι. διὸ τὰς τῶν ἀεὶ ὄντων ἀρχὰς, ἀναγκαῖον ἀεὶ εἶναι ἀληθεστάτας. οὐ γάρ ποτε ἀληθεῖς, οὐδ' ἐκείναις αἴτιόν τι ἐστὶ τοῦ εἶναι, ἀλλ' ἐκεῖναι τοῖς ἄλλοις. ὥσθ' ἕκαστον ὡς ἔχει τοῦ εἶναι, οὕτω καὶ τῆς ἀληθείας.—Aristot. Metaph. lib. ii. cap. 1.

[2] Aristot. Metaph. lib. iv. cap. 4.

for, as all the productions of the material creation owe their existence to seeds of one kind or other; so every true production in the intellectual system owes its existence to some sort of principles analogous to seeds.

But though all philosophers, who are in any respect entitled to that name, are unanimously agreed in the existence of such principles, as the only foundation of sound learning; it is amazing to reflect how widely they differ from each other in determining what they are. Almost every one who has embarked in the search of knowledge has exhibited a train of his own as the grounds of his future reasoning; and others refusing to admit them have, upon equal authority, substituted different ones in their room[3]. Aristotle himself, after refuting those of all his predecessors[4] was the prolific father of various principles; and, collected from one or

[3] Aristot. Metaph. lib. i. cap. 3—6, in which the Peripatetic delivers the different opinions of the ancient philosophers, Hesiod, Empedocles, Anaxagoras, Leucippus, Democritus, Pythagoras, Parmenides, Xenophanes, Melissus, and Plato.

[4] Aristot. Metaph. lib. i. cap. 7.

other, their number, their variety, and their inconsistency are almost infinite.

Principles like seeds are of many and various kinds, and to canvass and examine them, to reduce them to simplicity and order, to arrange them into classes, and determine them with precision, is the first and most essential office of sound logic.

As they are indispensable to all truth[5], *What are principles* is a previous question essential to the final and more comprehensive inquiry, "What is truth?"

Are they such axioms or universal propositions[6] as those upon which Aristotle and the sages of antiquity erected sciences and systems, and such as our Newton established for his Principia? If this question be affirmed (and it cannot be denied), it will bring after it another of equal moment. Are these axioms such principles as are properly *first;*

[5] Μάλιστα δὲ ἐπιστητὰ τὰ πρῶτα καὶ τὰ αἴτια. διὰ γὰρ ταῦτά, καὶ ἐκ τούτων τἄλλα γνωρίζεται, ἀλλ' οὐ ταῦτα διὰ τῶν ὑποκειμένων.—Aristot. Metaph. lib. i. cap. 2.

Aristot. Metaph. lib. ii. cap. 2.

[6] Καθόλου γὰρ μάλιστα, καὶ πάντων ἄρχαι τὰ ἀξιώματα εἰσίν.—Aristot. Metaph. lib. iii. cap. 2.

such as have the seed absolutely in themselves, that is, such as are derived from no others of any kind whatever by any act or process of reason; such as, in the words of a late writer, "are intuitively certain, or intuitively probable, and are known by a power of the mind which perceives truth not by progressive argumentation, but by an instantaneous and instinctive impulse; derived neither from education nor from habit, but from nature; acting independently upon our will, whenever the object is presented, according to an established law, and therefore not improperly called sense, and acting in the same manner upon all mankind, and therefore properly called common sense, the ultimate judge of truth[7]?" Or, are they the result of the laborious investigations, reasonings, and deductions of a few philosophers? If the latter part of this alternative be true (and the Categories from which Aristotle formed his axioms, whether philosophically or not is here no question, as well as the Principia of Newton, have immortalized the

[7] Beattie on Truth, p. 36 and 42.

fame of their inventors as splendid monuments of human reason;) there must be other grounds or evidences productive of intuitive certainty or intuitive probability, obvious, instantaneous, and incapable of being deduced by reason, which constitute the first principles from which these secondary ones are, by a process of reason, formed.

These primary principles (and they have surely the first title to the name of principles) are mentioned by the same author to be—the evidence of external sense; the evidence of internal sense or consciousness; the evidence of memory, and some others[8].

This general division of principles into primary and secondary, original and derived, evidences and axioms, let the distinction be made in what terms you will, however novel it may sound, is, I hope, philosophically made[9]: and, if so, it will be found of great

[8] Beattie on Truth, p. 43.

[9] These original evidences are acknowledged by Aristotle in book ii. cap. 19 of the Post. Analyt. as the genuine foundation from which all axioms are derived: and though he chooses to reserve an equal honour to the latter, he

importance in the search of truth in general, as it will divide our reasoning, which should always be governed by the principles, into two direct kinds or methods.

SECT. IV.

Of Reasoning in general.

ALL truth, to whatever province or department of mind it bears a reference, is deduced from principles by an act or reason, the organ which is common to them all, and the distinguishing prerogative of human nature.

It is observed by the excellent Lord Bacon in his Advancement of Learning, that soundness of direction in the application of the means takes away error and confusion, and forms the principal of those general expedients

allows the former to be necessary to their existence. *Ἀνάγκη ἄρα ἔχειν μέν τινα δύναμιν, μὴ τοιαύτην δ' ἔχειν, ἥ ἐστι τούτων τιμιωτέρα κάτ' ἀκρίβειαν—δυνάμιν σύμφυτον κριτικὴν, ἣν καλοῦσιν αἴσθησιν*, etc.

by which every work must be successfully conducted[1].

To execute a work in the line of his profession with competent ability, the artist not only should understand the power and compass of his instrument, but the particular manner in which, according to the nature of his materials and the progress of the work it should be employed. And it is of equal moment for the philosopher to know the general power and compass of reason, the instrument of truth; and also the particular method in which it is to be applied on different subjects, and in different stages of the investigation: because the want of a just attention to these fundamentals of sound logic has often misled the reasoner, increased his labour, and disgraced his learning.

A false estimate of reason heightened, as

[1] Merito primas tenet, Consilii prudentia et sanitas; hoc est, monstratio et delineatio viæ rectæ et proclivis ad rem quæ proponitur, peragendam. "Claudus enim (quod dici solet) in via antevertit cursorem extra viam:" et Solomon perapposite ad hanc rem: "Ferrum si retusum fuerit, viribus utendum majoribus: quod vero super omnia prævalet, est sapientia." Quibus verbis innuit, medii prudentem electionem efficacius conducere ad rem, quam virium aut intentionem aut accumulationem.—De Augm. Scient. lib. ii.

it has often been, into a wild conceit of its all-sufficiency, that it is itself the cause and the standard of all truth, is a fatal rock on which many adventurers in philosophy have either suffered shipwreck before they were well embarked, or else have been thrown out of the direct road, and left to the mercy of the waves to be tossed upon a tempestuous sea, by every blast of doctrine, into all the harbours round the world, except the right one. Supposing that from its own underived resources, by acting and reacting upon itself, reason can discover all truth of consequence to man, they totally mistake both its nature and office; as it is neither the original cause nor the standard of truth.

So far from being the cause of truth, it cannot penetrate into or even apprehend the essence or substances of things corporeal or mental[2]. It can only pass over their surface to take account of their qualities, powers, properties, operations, and affections, which are the causes; and that not directly

[2] Internas substantias nullo sensu, nulla actione reflexa cognoscimus.—Newtoni Sch. Gen. sub fine Princip.

and of itself, but by the help of such evidence as nature has supplied, which is the standard of truth.

Reason consists of perception and judgment, and operates by comparison; and its office is to judge of evidences, to form and to apply axioms, and to trace similitudes; so that it is properly the organ or instrument of truth. And in the execution of its office, it acts liberally and impartially, when not perverted and abused, accommodating its method and operation to the principles and nature of the subject, whatever they may be, upon which it is employed.

Sect. V.

Of Reasoning by Induction.

EVERY thing in the universe whether of mind or body, however mixed with others, presents itself to our observation in its individual state; so that perception and judgment employed in the investigation of all truth have, in the first place, to encounter with particulars. With these reason begins or should begin her operations. She observes, tries, canvasses, examines, and compares them together, and judges of them by some of those native evidences and original lights, which, as they are the first and indispensable inlets of knowledge to the mind, we propose to call the *primary* principles of truth[1].

[1] Homo naturæ minister et interpres tantum facit et intelligit, quantum de ordine naturæ opere vel mente observaverit; nec amplius scit, aut potest.—Bacon De Interp. Naturæ, et Nov. Orig. lib. i. aph. 1.

Φανερὸν δὲ καὶ, ὅτι, εἴ τις αἴσθησις ἐκλέλοιπεν, ἀνάγκη καὶ ἐπιστήμην τινὰ ἐκλελοιπέναι, ἣν ἀδύνατον λαβεῖν—ἐπαχθῆναι δὲ μὴ ἔχοντας αἴσθησιν, ἀδύνατον. τῶν γὰρ καθ' ἕκαστον ἡ αἴσθησις.—Aristot. Analyt. Post. lib. i.

By such acts of observation and judgment, diligently practised and frequently repeated, exercised on many particular or individual subjects of the same class and of a similar nature, noting their agreements and marking the differences however minute, and rejecting all instances which, however similar in appearance, are not in effect the same, reason with much labour and attention extracts some general laws[2] respecting the powers, properties, qualities, actions, passions, virtues, and relations of things, which are the causes of discovering truth.

This is no hasty, premature, notional abstraction of the mind, by which images and ideas are formed that in nature have no existence. Nor is it a careless and partial enumeration and induction of a number of particulars negligently examined and carelessly applied, by which general propositions can be formed with any philosophical solidity. It is a rational, operative, experimental process[3], instituted and executed upon the real

[2] Δῆλον δὴ ὅτι ἡμῖν τὰ πρῶτα ἐπαγωγῇ γνωρίζειν ἀναγκαῖον· καὶ γὰρ καὶ ἡ αἴσθησις οὕτω τὸ καθόλου ἐμποιεῖ.—Aristot. Analyt. Post. lib. ii. cap. 19. See lib. ii. cap. 13.

[3] Manus hominis nuda, quantumvis robusta et constans, ad opera pauca et facile sequentia sufficit: eadem ope in-

nature and constitution of things. By this process, reason advances from particulars to generals, from less general to more general; till by a series of slow progression and by regular degrees, she arrives at the most general ideas, called forms or formal causes[4]. And by affirming or denying a genus of a species, or an accident of a substance, or of a class of substances through all the stages of the gradation, we form conclusions, which if logically drawn are axioms[5], or gene-

strumentorum multa et reluctantia vincit. Similis est et mentis ratio.—Bacon. Nov. Org.

[4] Qui formas novit, is, quæ adhuc non facta sunt, qualia nec naturæ vicissitudines, nec experimentales industriæ unquam in actum produxissent, nec cogitationem humanam subituræ fuissent, detegit et educit.—Ibid.

[5] Axioms are the result of the most laborious and recondite learning, and that they should be firmly established, is an object of the first importance to the success of every branch of science. Lord Bacon therefore strenuously contends that they should never be taken upon conjecture, or even upon the authority of the learned; but that, as they are the general principles and grounds of all learning, they are to be canvassed and examined with the most scrupulous attention, "ut axiomatum corrigatur iniquitas, quæ plerumque in exemplis vulgatis fundamentum habent."—De Augm. Scient. lib. ii. cap. 2. "Atque illa ipsa putativa principia ad rationes reddendas compellere decrevimus, quousque plane constent."—Distrib. Operis.

That all axioms are intuitive and self-evident truths, is a fundamental mistake, into which Mr. Locke (Essay, book iv. chap. 7, sect. 1) and others (see Ancient Metaphysics, vol. i.

ral propositions ranged one above another,

book v. chap. iii. p. 389, and vol. ii. p. 335) have been betrayed to the great injury of science. This error has, I apprehend, been engrafted upon another equally prevalent, That mathematics is a system, or, at least, a specimen of universal reasoning; and, as mathematical axioms are presumed to be intuitive, they hastily presumed that all others were intuitive.

Mr. Locke was gifted with a strong mind, though not cultivated with much learning. In many parts of his Essay, he has shown himself an able metaphysician in the most useful part of that difficult science. He has however no where shown himself an able logician. He judged of the school-logic from its weak and useless effect in promoting the real interests of learning, and from its tendency to nothing but endless dispute and fruitless jargon. But though from a view of the end, he justly condemned the means, he did not understand them.

Surely he had neither read Aristotle nor Bacon, or he would not have discovered such a want of logical philosophy as this chapter of Maxims betrays; at the same time, that in the midst of so much darkness, like the sun from a cloud, his native strength of mind breaks out with this luminous sentence:—"In particulars, our knowledge begins, and so spreads itself by degrees to generals; though afterwards the mind takes the quite contrary course, and having drawn its knowledge into as general propositions as it can, makes those familiar to its thoughts, and accustoms itself to have recourse to them, as to the standards of truth and falsehood." Book iv. chap. 7, sect. 11.

He totally mistook the maxim of the schools, That all reasoning is ex præcognitis et præconcessis (Essay, book iv. chap. 2, sect. 8, and chap. 7). He seems indeed to have been unacquainted with the true philosophy of reasoning, and not to have understood the nature of those intermediate ideas to which he attributes the advancement of all knowledge, nor the true mode of their application; and he appears to have been mistaken in the nature of that agreement

till they terminate in those which are universal[6].

Axioms thus investigated and established, are applicable to all parts of learning, and are the indispensable[7], and the truly admirable expedients by which reason pushes on her inquiries in the particular pursuit of truth, in every branch of knowledge. The method of reasoning by which they are

and disagreement of ideas, of which he has said so much as the sole criteria of truth.

In the twelfth chapter of this book indeed he exposes the absurdity of taking axioms upon credit; but shows how little he understood of their use. His conception of the improvement of learning was very imperfect; for though he might understand the nature of physics, he was unacquainted with the philosophy of ethics and mathematics.

[6] Duæ viæ sunt atque esse possunt ad inquirendam veritatem. Altera a sensu et particularibus advolat ad axiomata maximè generalia, atque ex his principiis eorumque immotâ veritate judicat et invenit axiomata media: atque hæc via in usu est. Altera a sensu et particularibus excitat axiomata ascendendo continenter et gradatim, ut ultimo loco perveniatur ad maxime generalia; quæ via vera est et intentata.—Bacon. Nov. Org. lib. i. aph. 19. See also lib. i. aph. 102—107.

[7] *Τῶν ἀρχῶν δὲ αἱ μὲν ἐπαγωγῇ θεωρῆνται, αἱ δὲ αἰσθήσει, αἱ δὲ ἐθισμῷ τινὶ, καὶ ἄλλαι δὲ ἄλλως. Μετιέναι δὲ πειρατέον ἑκάστας ᾗ πεφύκασι, σπουδαστέον δὲ ὅπως ὁρισθῶσι καλῶς. Μεγάλην γὰρ ἔχουσι ῥοπὴν πρὸς τὰ ἑπόμενα. Δοκεῖ ἂν πλεῖον ἢ τὸ ἥμισυ τῆ παντὸς εἶναι ἡ ἀρχὴ, καὶ πολλὰ ἐμφανῆ γίνεσθαι δι' αὐτῆς τῶν ζητουμένων.*—Aristot. Ethic. Nicom. lib. i. cap. 7.

formed is that of true and legitimate induction[8], which is therefore called by the best and soundest of logicians, the key of interpretation[9].

If instead of taking his axioms out of the great families of the categories by an immediate and indolent extraction, and erecting them by his own sophistical invention into the principles upon which his disputation was to be employed[10], the analytical genius of Aristotle had presented us with the laws of the true inductive logic by which axioms are philosophically formed, and given us an example of it with his usual sagacity

[8] Inductionem censemus eam esse demonstrandi formam quæ sensum tuetur et naturam premit, et operibus imminet ac fere immiscetur.—Bacon. Distrib. Operis.

[9] Ibid. Nov. Org. lib. ii. aph. 10.

[10] Ex experientia arripiunt varia et vulgaria, eaque neque certo comperta, nec diligenter examinata et pensitata; reliqua in meditatione atque ingenii agitatione ponunt.—Hujus generis exemplum in Aristotele maxime conspicuum est, qui philosophiam dialecticâ suâ corrupit, quum mundum ex categoriis effecerit, et innumera pro arbitrio suo naturæ rerum imposuerit, magis ubique sollicitus quomodo quis respondendo se explicet, et aliquid reddatur in verbis positivum, quam de interna rerum veritate.—Ille enim prius decreverat; neque experientiam ad constituenda axiomata rite consuluit; sed, postquam pro arbitrio suo decrevisset, experientiam ad sua placita tortam circumducit et captivam. —Ibid, lib. i. aph. 62, 63.

in a single branch of science[11]; he would have brought an offering more valuable and acceptable to the temple of truth, than he effected by the aggregate of all his logical and philosophical productions.

It is after the inductive process has been industriously pursued and successfully per-

[11] Though in different parts of his works he gives a general idea of induction (Ὁμοίως δὲ καὶ περὶ τοὺς λόγους, οἵ τε διὰ συλλογισμῶν, καὶ οἱ δι' ἐπαγωγῆς· ἀμφότεροι γὰρ διὰ προγινωσκομένων ποιοῦνται τὴν διδασκαλίαν· οἱ μὲν, λαμβάνοντες ὡς παρὰ ξυνιέντων· οἱ δὲ, δεικνύντες τὸ καθόλου, διὰ τοῦ δῆλον εἶναι τὸ καθέκαστον.—Analyt. Post. lib. i. cap. i. Ἐκ προγινωσκομένων δὲ πᾶσα διδασκαλία. Ἡ μὲν δι' ἐπαγωγῆς, ἡ δὲ συλλογισμῷ. Ἡ μὲν δὴ ἐπαγωγὴ ἀρχή ἐστι καὶ τοῦ καθόλου. Ὁ δὲ συλλογισμὸς ἐκ τῶν καθόλου. Εἰσὶν ἄρα ἀρχαὶ, ἐξ ὧν ὁ συλλογισμὸς, ὧν ἐκ ἔστι συλλογισμός.—Ethic. Nicom. lib. vi. cap. 3.) from the whole of them, analytical, topical, and physical, it is clear he was very imperfectly acquainted with the particular philosophy of the inductive organon: and it is apparent from a passage in his Ethics (μὴ λανθανέτω δ' ἡμᾶς, ὅτι διαφέρουσιν οἱ ἀπὸ τῶν ἀρχῶν λόγοι, καὶ οἱ ἐπὶ τὰς ἀρχάς. Εὖ γὰρ καὶ Πλάτων ἠπόρει τοῦτο καὶ ἐζήτει, πότερον ἀπὸ τῶν ἀρχῶν, ἢ ἐπὶ τὰς ἀρχάς ἐστιν ἡ ὁδός, ὥσπερ ἐν τῷ σταδίῳ, ἀπὸ τῶν ἀγλοθετῶν ἐπὶ τὸ πέρας, ἢ ἀνάπαλιν. Ἀρκτέον μὲν γὰρ ἀπὸ τῶν γνωρίμων. Ταῦτα δὲ διττῶς. Τὰ μὲν γὰρ ἡμῖν, τὰ δὲ ἁπλῶς. Ἴσως ὅν ἡμῖν γε ἀρκτέον ἀπὸ τῶν ἡμῖν γνωρίμων.—ἀρχὴ γὰρ τὸ ὅτι· καὶ εἰ τοῦτο φαίνοιτο ἀρκούντως, οὐδὲν προσδεήσει τοῦ διότι.—Ethic. Nicom. lib. i. cap. 4.) that he never put it in practice in the formation of his axioms and principles, which he chose rather to assume gratuitously, or to fabricate by his own invention. See Analyt. Post. lib. i. cap. 24.

formed, that definition[12] so pompously but prematurely, so formally but gratuitously affected by the old logicians and their disciples of the schools, may be logically and usefully introduced, by beginning with the genus, passing through all the graduate and subordinate stages, and marking the specific difference as it descends, till it arrive at the individual which is the subject of the question. By adding an affirmation or negation of the attribute of the genus, to the species or individual, or that of a general accident, to the particular substance so defined, and thus making the definition a proposition, the truth of the question will be logically solved, without any farther process[13]. So that instead of being the first, as employed by the logic in common use, definition should form the last act of reason in the search of all truth, except that which is strictly mathematical.

But we are now anticipating the subject of the following section.

[12] Δεῖ γὰρ ἐξ ὧν ὁ ὁρισμὸς, προειδέναι καὶ εἶναι γνώριμα.—Aristot. Metaph. lib. i. cap. 7.

[13] Aristot. Analyt. Post. lib. i. cap. 10.

Sect. VI.

Of Reasoning by Syllogism.

THESE axioms or general propositions thus inductively established, become another species of principles which may be properly called *secondary*, and which lay the foundation of another and different method of reasoning.

When these are formed, and not before, we may safely admit the maxim with which the old logicians set out in the exercise of their art, as the great hinge on which their reasoning and disputation turn,—from truths that are already known[1], to derive others which are not known. Or to state it more comprehensively, so as to apply to probable, as well as to demonstrative reasoning—from truths which are better known[2], to derive others which are less known.

[1] Ἐξ ἀληθῶν καὶ πρώτων καὶ ἀμέσων καὶ γνωριμοτέρων καὶ προτέρων καὶ αἰτιῶν τῦ συμπέρασματος.—Aristot. Analyt. Post. lib. i.

[2] Ex præcognitis et præconcessis.

These known or better-known truths constitute those axioms or general propositions, the existence of which this other method of reasoning, not only requires, but of which it also demands a subordination and gradation. On these as principles, all its operations are founded, and on the truth and soundness of these its success must ultimately depend.

Philosophically speaking, this reasoning consists in reducing under general propositions others which are less general, or which are particular[3], where the proof arises out of higher and more general propositions; since the inferior are only known to be true, as we trace their connection with the superior. For what is true of any whole class, must be true of all in that class; but the class itself must be pure and without any thing extraneous, and the particular truth which is to be proved must belong to that class, or the conclusion will be false. Logically speaking, it is to predicate a genus

[3] Manifestum est artem judicandi per syllogismum nihil aliud esse, quam reductionem propositionum ad principia. —Bacon. De Augm. Scient. lib. v. cap. 4.

of a species, or individual contained and comprehended under it[4], or an accident of the substance in which it is inherent[5]: for whatever, as a whole or genus, contains another, as a part or species, it communicates to it its nature and properties; and whatever common accident is actually inherent in a class of substances, it communicates itself in a logical sense, to every particular of the class. Therefore, when a question arises upon any subject, the inquiry is, What is true of the genus or family under which it classes? for that will be always true of it, whether a species or a particular and *vice versâ*, upon the great logical maxim, that what is true of the whole is true of all its parts[6]. Thus it is the business of syllo-

[4] Καθ' ὑποκειμένου—Τῶν ὄντων, τὰ μὲν καθ' ὑποκειμένου τινὸς λέγεται, ἐν ὑποκειμένῳ δὲ οὐδενί ἐστιν. οἷον, ὁ ἄνθρωπος, καθ' ὑποκειμένου μὲν λέγεται τοῦ τινος ἀνθρώπου, ἐν ὑποκειμένῳ δὲ οὐδενί ἐστιν. Aristot. Categ. cap. 2.

[5] Εν ὑποκειμένῳ—τὰ δὲ, ἐν ὑποκειμένῳ μέν ἐστι, καθ' ὑποκειμένου δὲ οὐδενὸς λέγεται· (ἐν ὑποκειμένῳ δὲ λέγω, ὅ ἔν τινι μὴ ὡς μέρος ὑπάρχον, ἀδύνατον χωρὶς εἶναι τοῦ ἐν ᾧ ἐστιν·) οἷον ἥ τις γραμματικὴ, ἐν ὑποκειμένῳ μέν ἐστι τῇ ψυχῇ, καθ' ὑποκειμένου δὲ οὐδενὸς λέγεται· καὶ τωτὶ τὸ λευκὸν, ἐν ὑποκειμένῳ μέν ἐστι τῷ σώματι, (ἅπαν γὰρ χρῶμα, ἐν σώματι,) καθ' ὑποκειμένου δὲ οὐδενὸς λέγεται·—Ibid.

[6] Quod verum est de toto verum est de omni.

This is generally expressed by *dictum de omni*, a logical

gism to form under general propositions others which are less and less general, till we descend to the particular which is the object of our research. And here we arrive at the true foundation of that agreement and disagreement, which logically speaking constitute affirmative and negative truth.

This method of reasoning has obtained the name of Syllogism or Collection, which has been analysed by Aristotle in a minute and laborious process, with a wonderful degree of subtlety and acumen. He has exhibited it to view in every possible shape, enacted the laws by which it is to be governed, and invented all the modes and figures into which it may be cast. Such was the study which exercised the wits of all the schoolmen for nearly a thousand years.

axiom, that what is affirmed of the genus or whole, may be affirmed of all the species and individuals under it. And the opposite axiom is *dictum de nullo*, that what is denied of the genus or whole may be denied of its species or individuals. By these axioms all the modes of the first figure are governed, to which all the legitimate modes of the other figures are reducible.

Thus induction and syllogism are the two methods of direct reasoning corresponding to the two kinds of principles, primary and secondary, on which they are founded, and by which they are respectively conducted[7]. In both methods indeed reason proceeds by judging and comparing, but the process is different throughout. In the exercise of induction, the first thing is to perceive and to judge of particulars, from their respective evidence by single apprehension, as the senses do of objects. The next is to compare these judgments together by single and simple acts, and that immediately[8], from the agreement of a number of which col-

[7] Ὁμοίως δὲ καὶ περὶ τοὺς λόγους, οἵ τε διὰ συλλογισμῶν, καὶ οἱ δι' ἐπαγωγῆς· ἀμφότεροι γὰρ διὰ προγινωσκομένων ποιοῦνται τὴν διδασκαλίαν· οἱ μὲν λαμβάνοντες ὡς παρὰ ξυνιέντων· οἱ δὲ, δεικνύντες τὸ καθόλου, διὰ τοῦ δῆλον εἶναι τὸ καθέκαστον.—Aristot. Analyt. Post. lib. i. cap. 1.

[8] Ἔστι δὲ ὁ τοιοῦτος συλλογισμὸς τῆς πρώτης καὶ ἀμέσου προτάσεως.—Aristot. Analyt. Prior. cap. 23.

In arte judicandi, aut per inductionem aut per syllogismum concluditur. At, quatenus ad judicium quod fit per inductionem, uno eodemque mentis opere illud quod quæritur et invenitur et judicatur. Neque enim per medium aliquod res transigitur, sed immediate, eodemque fere modo quo fit in sensu: quippe sensus in objectis suis primariis simul et objecti speciem arripit et ejus veritate consentit. Bacon. De Augm. Scient. lib. v. cap. 4.

lateral judgments, general ideas and propositions are derived. In the exercise of syllogism, the first thing is to compare by double and complex comparisons, through the help of a third or middle term severally applied to the two original terms of the question[9], making two propositions called the premises. The second thing is to judge of these premises in order to collect a third proposition or conclusion, different from them both[10]. As therefore these methods of reasoning proceed on different principles, so are they not only different, but the reverse of each other[11]; and, though it may have the sanction of Aristotle, an inductive syllogism[12] is a solecism.

Till general truths are ascertained by induction, these third or middle terms by which

[9] Ὧν μὲν γάρ ἐστι μέσον, διὰ τοῦ μέσου ὁ συλλογισμός· ὧν δὲ μή ἐστι, δι' ἐπαγωγῆς.—Analyt. Prior. cap. 23.

Aliter fit in syllogismo, cujus probatio immediata non est, sed per medium perficitur. De Augm. Scient. lib. v. cap. 4.

[10] Συλλογισμὸς δὲ ἐστὶ λόγος, ἐν ᾧ, τεθέντων τινῶν, ἕτερόν τι τῶν κειμένων ἐξ ἀνάγκης συμβαίνει τῷ ταῦτα εἶναι.—Aristot. Analyt. Prior. lib. i. cap. 1.

[11] Καὶ τρόπον τινὰ ἀντίκειται ἡ ἐπαγωγὴ τῷ συλλογισμῷ, are the words of Aristotle himself. Analyt. Prior. cap. xxiii.

[12] Analyt. Prior. lib. ii. cap. 23.

syllogisms are made, are no where safely to be found; for it is only by the middle terms and propositions taken from general truths, that less general or particular truths can be evinced[13]. "The invention of the middle term or argument by induction, is therefore the one and first thing, and the judgment of the consequence, from the argument by syllogism, is the other and second[14]." So that another position of the Peripatetic, "that syllogism is naturally prior in order to induction[15]," is equally unfounded; for induction does not only naturally but necessarily precede syllogism, and is in every respect indispensable to its existence; since till generals are established, there can neither be definition, proposition, middle term, or axiom, and consequently no syllogism.

[13] Let the truth in question be whether A contain C, and the general truth that A contains B. B the subject of the general proposition is the middle term, by which a middle proposition is formed, that C contains B, from which the truth in question is deduced. Aristot. Prior. Analyt. on the invention of middle terms.

[14] Itaque alia res est inventio medii, alia judicium de consequentia argumenti. De Augm. Scient. lib. v. cap. 4.

[15] *Φύσει μὲν ὂν πρότερος καὶ γνωριμώτερος, διὰ τὸ μέσου συλλογισμός· ἡμῖν δὲ ἐναργέστερος, ὁ διὰ τῆς ἐπαγωγῆς.*—Analyt. Prior. cap. 23.

And as induction is the first, so is it the more essential and fundamental instrument of reasoning; for as syllogism can never produce its own principles[16], it must have them from induction; and if the general propositions or secondary principles be imperfectly or infirmly established, and still more if they be taken at hazard, upon authority, or by arbitrary assumption, like those of Aristotle, all the syllogizing in the world is a vain and useless logomachy[17], instrumental only to the multiplication of false learning, and to the invention and confirmation of error. The truth of syllogism depends ulti-

[16] Syllogismus ad principia scientiarium non adhibetur. Nov. Org. lib. i. aph. 21.

[17] Syllogismus ex propositionibus constat, propositiones ex verbis, verba notionum tesseræ sunt. Itaque si notiones ipsæ (id quod basis rei est) confusæ sint et temere a rebus abstractæ, nihil in iis quæ superstruuntur est firmitudinis: itaque spes est una in inductione vera. Nov. Org. lib. i. Aph. 14. *Ἀδύνατον δὲ τὰ καθόλω θεωρῆσαι, εἰ μὴ δι' ἐπαγωγῆς· (ἐπεὶ καὶ τὰ ἐξ ἀφαιρέσεως λεγόμενα ἔναι δι' ἐπαγωγῆς γνώριμα, κἄν τις βούληται γνώριμα ποιεῖν ὅτι ὑπάρχει ἑκάτω γένει ἕνια)—οὔτε γὰρ ἐκ τῶν καθόλω ἄνευ ἐπαγωγῆς, οὔτε διὰ τῆς ἐπαγωγῆς ἄνευ τῆς αἰσθήσεως.*—Analyt. Post. lib. i. But the *ἐπαγωγὴ* of Aristotle is a very vague and imperfect representation of sound and legitimate induction, which he never studied or cultivated with the pains and analytical acumen he bestowed on the syllogism.

mately on the truth of axioms, and the truth of axioms on the soundness of inductions.—Thus induction is not only different from, but prior and essential to syllogism, and likewise superior in value[18].

But though induction be more useful in the first invention of truth, syllogism it is said is more useful in teaching it when found.

Truth is more easily conveyed than found. Induction is not only the sole method of invention, but of initiation also, taken in its enlarged and classical meaning, for all parts of human learning, except the mathematics, owe to it both their origin and advancement. Being however more difficult and laborious, and less ostentatious than the other, it has been too much neglected, and almost quite abandoned, to the great loss of truth in general. Syllogism affects indeed

[18] "In matters to which the theory of syllogism extends, a man of good sense, who can distinguish things that differ, can avoid the snares of ambiguous words, and is moderately practised in such matters, sees at once all that can be inferred from the premises; or finds that there is but a very short step to the conclusion." Dr. Reid, in Appendix to vol. iii. of Lord Kaims's Sketches.

to be the method of science, and the method of instruction; though perhaps when duly estimated, with less title to those distinctions than the former. It is indeed the method of mathematics, which have unfortunately been mistaken by logicians for the rule of universal reasoning[19]: and, as the word signifies teaching, or that by which men are taught, from another mistake of its meaning[20], they thought syllogism was, of course, the method both of science and instruction. In all other parts of science however, whether we wish to add to their truths by farther inventions, or, really to exemplify, illustrate, or teach what is already known, the only method of science, and the best method of instruction is that of invention and initiation by induction[21].

[19] Duncan, p. 118, and almost every other book of logic. Mr. Harris somewhere calls it the praxis of universal logic: and Mr. Locke was perhaps as much misled by this mistaken notion as any other philosopher.

[20] The true and original meaning of μαθήματα was, to teach men to ascend from material to immaterial subjects, that is, from physics to metaphysics.

[21] Scientia, quæ aliis tanquam tela pertexenda traditur, eadem methodo (si fieri potest) animo alterius est insinu-

Thus I have taken a general and comprehensive, but compendious view (and they who know how many volumes have been employed upon syllogism alone cannot think that I have been prolix) of the whole exercise of reason, as it advances in the direct investigation of truth, which is ascending and descending; ascending by induction from less to greater, from particulars to generals; and descending by syllogism from greater to less, from general to less general, and to particulars.

anda, quâ primitus inventa. De Augm. Scient. lib. vi. cap. 2.

On the general subject of this chapter, consult Reid's Analysis of Aristotle's Logic; Stewart's Philosophy of the Mind, vol. ii.; Herschell's Introduction to Natural Philosophy; Barrow's Lectiones Mathematicæ, Lect. vi.; the article Logic in the Encyclopædia Britannica; Campbell's Philosophy of Rhetoric, vol. i. chap. 5, &c.—*Editor.*

Sect. VII.

Of Reasoning by Analogy[1].

TO these two kinds of reasoning which are direct, we add another of great importance and extent which is indirect and collateral.

The principle, in which this branch of logic has its foundation, is a native bent and propensity of the mind, strengthened by experience and confirmed by habit, by which we are involuntarily led to expect that nature and truth are uniform and analogous throughout the universe—that similar causes of whatever kind will, in similar circumstances, at all times produce similar effects: or, if the causes cannot be known, that similar effects[2] will explain, illustrate, and account for similar effects.

[1] On the general subject of this chapter, consult Butler's Analogy; Reid's Essays, vol. i. chap. iv.; Stewart's Elements, vol. ii. chap. 4, sect. 2, § 3.

[2] If the liberty of arguing from a similarity of effects be

This principle then resolves itself into similitude, and reason acts upon it, as in all other cases, by comparing and judging. Thus we argue from truths which have been proved by direct reasoning, or which are obvious to simple apprehension, to others which are similar in cause or in effect; and if, upon comparing and judging, the principle will bear us out, we conclude the latter to be also true; a conclusion which will supply us with a kind and degree of truth sufficient for most of the uses and purposes of human life.

This method of reasoning is Analogy, which according to Quintilian, is "to refer a thing that is doubtful, to something similar and different, that uncertainties may derive their proof from certainties[3]."

This kind of reasoning has a more permanent and certain foundation than perhaps may appear to some upon a superficial esti-

once denied us, all experimental philosophy will be in a manner useless. Jones's Philosophy, p. 119.

[3] Analogiæ hæc vis est, ut id, quod dubium est, ad aliquod simile, de quo non quæritur, referat, ut incerta certis probetur. Quintilian. Inst. Orat. lib. i. cap. 6.

mate of that similitude on which it rests. "This is not," says the excellent Bishop Browne, "an appearing and metaphorical similitude; it is the substituting the idea or conception of one thing to stand for and represent another, on account of a true resemblance and correspondent reality in the very nature of the things compared. It is defined by Aristotle, an equality or parity of reasoning[4]; though, in strictness of speaking, the parity of reasoning is rather built on the similitude and analogy, and consequent to them, than the same with them[5]."

The result of this reasoning is however not properly conviction; it is only strong presumption at best; and, from the view of the truths we know, arises an opinion concerning those we do not know, which opinion will of course vary in the degrees of its force almost from the point of absolute certainty through the whole scale of probabilities, down to the confines of doubt and conjecture—according to the nature of the

[4] Ἡ ἀναλογία ἰσότης ἐστὶ λόγου. Ethic. Nicom. lib. v. cap. 3.

[5] Bp. Browne's Divine Analogy, p. 2.

truths from which we reason—according to their greater or less extent and—according as the cases and instances compared are more or less similar.

Analogy is a species of logic on which the Stagyrite has been as frugal of his philosophy[6], as he was upon induction. It is however a method of reasoning of most useful and important application and almost of universal extent in life.

It is the business of the first logic to convey truth and information to the mind, easy in its application and obvious in its conclusion. And besides this advantage, resulting from its plainness and familiarity (an advantage which the ablest philosophers and the divinest teachers have been careful to improve), it has other privileges. Many truths, divine and human, of the last importance to men are incapable both of direct proof and direct

[6] The *παράδειγμα*, of which he speaks in the twenty-fifth chapter of the second book of the Prior Analytics in a very cursory way, is indeed something like *analogy*, *τούτῳ δὲ πίστις ἐκ τῶν ὁμοίων—φανερὸν ἓν ὅτι τὸ παράδειγμά ἐστιν, ὅτε ὡς ὅλον πρὸς μέρος, ὅτε ὡς μέρος πρὸς ὅλον, ἀλλ' ὡς μέρος πρὸς μέρος, ὅταν ἄμφω μὲν ᾖ ὑπὸ τὸ αὐτὸ, γνωριμον δὲ θάτερον.*

communication[8], and can only be evinced and conveyed to the understanding, by this indirect and collateral channel. Many which can be directly proved and directly conveyed, it illustrates with clearer and fuller light, and sets them in a point of view easier to be seen and apprehended by us.

But analogy has also a scientific use which is conspicuously displayed, when it acts as a necessary supplement and auxiliary to inductive reasoning, without which, this useful part of logic would remain very defective and confined. When the philosopher has founded a general truth or proposition upon a certain number of particular comparisons, it is by the help of analogy that he gives it an extent over all similar instances throughout the universe, till it may happen to be contradicted by one, in which it is found to fail. So that by analogy the whole province of truth is facilitated, illustrated and enlarged, and widened beyond the strict and proper limits both of inductive and syllogistic reasoning.

[8] Bishop Browne's Divine Analogy.

Thus we see this method of reasoning is totally different from those preceding. Whilst they alike agree in two general points—that they argue from truths known before[9] either particular or general, and—that they reason by comparing and judging; yet is it from different first truths or principles, and in a different way. And whilst the student or philosopher is deriving advantage from each, let him take care to keep them separate and distinct, and in their proper sphere; or, by a promiscuous application, he will be in danger of employing them where they will not usefully apply, and instead of leading him to truth, where they will betray him into error.

These three different methods constitute the proper, and, I think, the whole, business of logic, that useful and universal art, which for two thousand years has been twisted and

[9] Ἐκ τῶν προγινοσκομένων πᾶσα διδασκαλία. Aristot. Ethic. Nicom. lib. vi. cap. 3. Ex præcognitis et præconcessis.

Πᾶσα διδασκαλία καὶ πᾶσα μάθησις διανοητικὴ ἐκ προϋπαρχούσης γινέται γνώσεως. Ibid. Analyt. Post. lib. i. cap. 1.

tormented into ten thousand shapes; which has been proudly and formally professed by many, but philosophically practised or understood by few.

This logic is legitimate in its origin and rational in its progress. It rejects the old logic as illegitimate, or the foundling of imagination, rather than the offspring of reason. Considering all truth as the furniture of the mind and modified by its faculties, it takes account of these faculties from the first philosophy, with which universal science it has a near connexion[10], distinguishing their separate objects and operations. It then applies reason to the evidences or first principles of every kind, advancing by a slow and gradual motion to general truths or secondary principles, which form the basis of farther conclusions to be deduced in another but easier way. And it evinces and illustrates the whole, by correspondent and

[10] Ἡ δὲ διαλεκτικὴ τὴν πρώτην μιμουμένη φιλοσοφίαν τὰ πάντα πειρᾶται δεικνύναι, ὥσπερ πάντων αὐτῇ ὑποκειμένων.—Philoponus.

collateral proofs. Thus it fixes a just criterion for determining its assent in all.

It does not begin with definitions of its own invention hypothetically formed and verbally constructed, calculated only to answer its own views, and to serve its own intentions. It does not erect its own imaginary notions and premature assumptions into dogmas and principles which are gratuitous, and which it forbids to be examined. Instead of pursuing the quibbles and niceties of terms divorced from things and arbitrarily defined, it descends to the minutiæ and subtlety of things themselves experimentally examined; making it the chief object to canvass and to establish the real principles of knowledge. From these principles, it does not spin the cobwebs of imaginary systems without use or end[11], but erects upon them

[11] Hoc genus doctrinæ minus sanæ et se ipsam corrumpentis invaluit, præcipue apud multos ex scholasticis, qui summo otio abundantes, atque ingenio acres, lectione autem impares (quippe quorum mentes conclusæ essent in paucorum authorum, præcipue Aristotelis dictatoris sui scriptis, non minus quam corpora ipsorum in cœnobiorum cellis) historiam vero et naturæ et temporis maxima ex parte ignorantes; ex non magno materiæ stamine, sed maxima

the superstructure of useful and substantial science.

Instead of relying on mere memory for information, it prompts the mind to the exercise of reflection. Instead of building on the vague authority of others, where it can it judges for itself. Thus prejudices begin to soften and prepossessions to vanish, and that weak opinion, which governs the multitude, to lose its influence.

It is not presumptive but inquisitive, not indolent but active, not verbose but practical. It does not waste our time in wrangling and disputation, which, however they may have been magnified in their use when viewed through the medium of that ignorance of which they are the patrons, or extolled by the tongue of foolish adulation, had never any other purpose, than to retard the progress

spiritus, quasi radii, agitatione, operosissimas illas telas, quæ in libris eorum extant, confecerunt. Etenim, mens humana si agat in materiam, naturam rerum et opera Dei contemplando, pro modo materiæ operatur, atque ab eadem determinatur; sin ipsa in se vertatur (tanquam aranea texens telam) tum demum interminata est, et parit certe telas quasdam doctrinæ, tenuitate fili operisque admirabiles, sed quoad usum frivolas et inanes. De Augm. Scient. lib. i. p. 40.

of good learning, and to check the growth of truth[12], and, in the pointed language of the apostle, "to minister questions and to gender strifes." What it fairly acquires of whatever kind, it enjoys with gratitude, and communicates with simplicity. It discriminates between certainty and probability, knowledge and conjecture, and their several modes. It endeavours to ascertain the just limits and extent of the human understanding, and has the courage to be ignorant of what lies beyond its reach.

Professing to fill the great and general office of conducting men in the invention and communication of all it is possible they can know, it disdains the narrow limits of human system, and refuses to be considered as an art, which by that system is made complete and perfect. Though subject to the rules which are prescribed by the nature of the truth which is its object, it disdains to be confined within the trammels of mode and figure, and to be cramped in its motion by

[12] Logica quæ in usu est ad errores stabiliendos et figendos valet, potius quam ad inquisitionem veritatis; ut magis sit damnosa quam utilis. Nov. Org. lib. ii. aph. 12.

the artificial forms of Aristotle, Smiglecius, Burgersdicius and Wallis. It is always in a state of free investigation and progressive improvement, changing with the changes, and advancing with the advancement of learning, till all truth be discovered.

Sect. VIII.

Of the respective Kinds of Truth.

FROM the view that has been taken of truth in general, and the relation which it bears to the intellect, the will, and the imagination, the three great provinces of the human mind, and of its general principles, primary and secondary, from which all reasoning divides into two direct methods, the inductive and the syllogistic, assisted by a third, which is the analogic, let us descend to the consideration of particular principles, their correspondent method of reasoning, and the kinds of truth in which they terminate.

Truth, which we have been hitherto considering in the gross, like every thing in

the universe, will be found upon a nearer inspection to vary its features, to assume a particular complexion, and to take a special form, according to the different nature of its means, which are all those various substances and subjects of the universe, both of mind and body, from which its particular principles and grounds of judgment are supplied[1].

And as we have observed the general method of reasoning, to differ with the general division of principles; so we may reasonably expect to find that all these particular principles, as they shoot from the common stock into all the arts and sciences, and give life to every branch of the tree of knowledge, demand a different sort of proof or evidence, and a method of reasoning appropriate to themselves[2].

[1] Αἱ ἀρχαὶ καὶ τὰ αἴτια ζητεῖται τῶν ὄντων· δῆλον δὲ ὅτι ᾗ ὄντα. Ἔστι γάρ τι αἴτιον ὑγιείας καὶ εὐεξίας. Καὶ τῶν μαθηματικῶν εἰσιν ἀρχαὶ καὶ στοιχεῖα, καὶ αἴτια. Καὶ ὅλως δὲ πᾶσα ἐπιστήμη διανοητικὴ, ἢ καὶ μετέχουσά τι διανοίας, περὶ αἰτίας καὶ ἀρχάς ἐστιν, ἢ ἀκριβεστέρας, ἢ ἁπλουστέρας· ἀλλὰ πᾶσαι αὗται περὶ ἕν τι, καὶ γένος τι περιγραψάμεναι, περὶ τούτῳ πραγματεύονται. —Aristot. Metaph. lib. vi. cap. 1.

[2] Αἱ μὲν αἰσθήσει ποιήσασαι αὐτὸ δῆλον, αἱ δ' ὑπόθεσιν λαβοῦσαι τὸ τί ἐστιν, ὅτω τὰ καθ' αὑτὰ ὑπαρχόντα τῷ γένει περὶ ὃ εἰσιν, ἀποδεικνύουσιν ἢ ἀναγκαιότερον ἢ μαλακώτερον.—Aristot. Metaph. lib. vi. cap. 1.

But what is of still higher importance, we shall find that all these different principles, so differently conducted, terminate in different kinds of truth, and also possessed of various degrees of evidence and conviction. Thus we see the fruits of the harvest or of the vintage differing from each other both in shape and quality, according to the different seeds from which they spring, and to the different mode of their cultivation.

And here we may contemplate with admiration and not without advantage, that amazing similitude, that universal harmony, and exact proportion, which, in the midst of the most wonderful variety, pervade the mental and material systems; by which a clear and resplendent ray of light is reflected from the one part upon the other, however remote and distinct, and even independent of each other they may appear.

"And God said, Let there be light and there was light[3]."—"And God said, Let the earth bring forth grass, the herb yielding

[3] Gen. i. 3.

seed, and the fruit-tree yielding fruit, whose seed is in itself, after its kind upon the earth; and it was so[4]." In all his works, however diversified, he is uniform in operation and consistent with himself; and this mandate of the Deity giving law to the various kinds or productions of his vegetable kingdom may be considered from the analogy of things as extending to those of his intellectual. We may thus consider the several kinds of truth with which the world is replenished, as springing from seeds or principles of their own, which they possess within themselves, ripening when matured by proper cultivation into every species of knowledge human and divine, producing that measure of certainty or probability of which they are naturally capable, and terminating in those several degrees of conviction and assent which are shaped and proportioned to themselves.

This mode of illustrating mental operations and affections by the analogy of vegetable productions, was employed by One,

[4] Gen. i. 11.

whose method, as it was on all occasions the aptest and most familiar, may be imitated with advantage, and whose example, as it was in all things the model of perfection, may be followed without reserve.—"Ye shall know them by their fruits. Do men gather grapes of thorns or figs of thistles? Even so every good tree bringeth forth good fruit, but a corrupt tree bringeth forth evil fruit[5]."—This mode of reasoning is at once simple and energetic; and by reversing the analogy we may say, that as to expect a produce of wheat from the seed and cultivation of barley, or the fruit of the olive tree from the plant and culture of the vine, would in common life be marked as an absurdity akin to madness; so to suppose that truths from different principles and deduced in a different way will result the same, will shine with an equal degree of brightness, or be attended with the same measure of conviction, involves an absurdity equally great, though perhaps not quite so glaring. Yet, whilst the former is an absurdity of which the peasant is utterly incapable, the latter

[5] Matth. vii. 16, 17.

has too often disgraced the philosopher or theologist and involved them in error and confusion.

From the vast number and variety of substances and subjects both mental and material with which the universe is so abundantly replenished and so beautifully adorned, the particular principles or seeds of truth may be expected to consist of many and various kinds. But to take them up purely and distinctly in their proper existence, that is, as every substance or subject is calculated by nature to make its address to the understanding and to afford it a just and solid ground of judgment; and then to pursue them each in its distinct and proper province in the way which they lead themselves to the end which they are calculated to fulfil and to no other, and in that end to repose with confidence, this is the particular office of pure and genuine logic,—that universal art, to which when fairly and philosophically, not scholastically exercised, science and learning have been and must ever be indebted.

Here then a wide and various field of study

and speculation lies open before the rational and ingenuous inquirer, full of irregularity and order, of variety and consistency, of number and uniformity, for the exercise of his judgment and the trial of his industry. By a process of reasoning philosophically instituted and logically conducted, adapted with address to the nature and genius of different subjects, and varied with their principles, he may hope to conduct his researches in the safe but silent, in the slow but sure investigation of the causes of truth and error. And if after his most diligent and best directed labours, he should fail of success in many parts of this vast and various field, he will have learned the wisdom and possess the fortitude to rest in ignorance, thankful for what he is allowed to know, and without presuming that Providence intended he should know the whole.

Thus though truth with other exclusive perfections be of equal certainty in the Divine mind, (for all truth is equally opposite to falsehood, though the opposition be not equally obvious to us,) that partial, pro-

gressive, various and deceptive though immutable ray of it which illumines the human, when logically and distinctly found, does not shine out upon all subjects with the same force and brightness, but is varied into many kinds and degrees, like the different shades of light and colour, according to the different origin and the different medium through which it comes; the darkest of which shades of truth may even be ordained by his omniscient will to be the "Light of life." Yet Wisdom will instruct her children, of whom in all virtue and knowledge she is justified, to despise and dishonour none; but to cultivate all truth with diligence and humility, with "meekness and fear[6]," and in their researches of every kind to adopt something like the following rule

"To take up the principles of each part of learning as they exist in nature, in its distinct and proper province; to judge and reason in the method which these principles prescribe; and, when the truth is found, whatever it may be, to embrace and honour

[6] 1 Pet. iii. 15.

it as the gift of Heaven by a reasonable and virtuous assent, and to rest satisfied in it, as the fittest and the best, and as all that Providence in his wisdom intended to give."

By the use of such expedients and by the application of such a rule as sound logic and philosophy prescribe, with the aid of virtue and religion, we may hope to search into the nature, genius, and dependencies of the different kinds of knowledge; to trace the several links of the golden chain which the Poet so finely imagined to be let down from the throne of Jupiter; and to be enabled to perceive how reason ascends step by step, through all the regions of science human and divine, to the universal fountain of light and truth.

THE GENERAL PLAN.

The rule of reason which I have attempted to establish on the preliminary principles discussed in the preceding sections, is I hope just and philosophical, and subject to no fair ground of objection. To exemplify this general rule by applying it particularly to some of those important parts of knowledge which are cultivated in this celebrated university, or in other words, to reduce the particular parts under the general rule, may be to all who can peruse it a useful, and to some an interesting work.

According to this plan therefore we shall attempt to trace the distinct and proper principles, to point out the right method of reasoning, and to make that just assent, which appertain to the different kinds of truth, all corresponding with each other, as they severally relate to the intellect, the will, and the imagination; and this for the express and

special purpose of ascertaining the proper nature, the particular method, and the peculiar genius of theologic truth. This design, should I be able to execute it according to the hope perhaps the presumption which I have indulged, promises to lay the deepest as well as the broadest base on which "to ground and establish the Christian faith[1]."

This will form the first part of my design and be preparatory to my second object, which is—to show how all the other kinds of truth minister and subserve, in their proper use, both to the introduction and support of theological, and thus contribute to the further confirmation and illustration of that faith.

The second part will pave the way to our third object,—*viz.* to discover, in the different modes of abuse of the several kinds of truth as they pass in review before us, several of the principal and most inveterate causes of heretical and schismatical errors[2]. By laying bare their root and pointing out their origin,

[1] See the Extract from the Will of Mr. Bampton prefixed to this volume.

[2] See the same extract.

this method will prove the most logical and effectual to eradicate and expose them.

In the first Part which is the ground-plot of the two following, we shall take a logical estimate of the different kinds of knowledge, and chalk out a general chart of their distinct and separate provinces, exhibiting a parallel or comparative view of the different logic appropriated to each—a parallel of their principles—a parallel of their reasoning—and a parallel of their truth.

Such a general chart and estimate, by distinguishing them from each other and by presenting before the eye a full and comprehensive prospect of their order and disposition, their relations and connexions, their bearings and dependencies, may afford many facilities to the advancement of universal learning, may contribute to remove much of the difficulty of science, and assist reason in piloting her way with safety and success through every part of her literary voyage.

From general views of science the student derives strength of mind and clearness of

comprehension. Like the enlightened traveller with a map of the roads and districts in his hand, he can take the whole country before him at one glance. He can mark clearly with his eye every confine, division, and subdivision of the whole, and can see distinctly every object and its situation, within the extent of the horizon. Instead of wandering about in a perpetual maze of error and confusion from narrow and contracted views, as if led by the glimmerings of a torch through the darkness of the night; he moves from place to place with ease and certainty in the enlargement of his mind, as under the direction of the sun at noon. "Were it not better," says the incomparable Bacon, "for a man in a fair room to set up one great light, or branching candlestick of lights, whereby all may be seen at once, than to go up and down with a small watch candle into every corner? For when you carry the light into one corner, you darken all the rest[3]."

Delivered by such an enlarged and com-

[3] De Augm. Scient. lib. i. p. 40.

prehensive view of things from all attachments and aversions which are partial and confined, he is dispossessed of prejudice, which is always an inveterate, and often an invincible enemy of truth; which warps and misleads the judgment, and draws all the powers of the understanding within the confines of its own contracted prison. And beside the yoke of prejudice, he can shake off those embarrassing difficulties which have their origin only in partial views; but which however insignificant, puzzle and confound the reasoner. "The sciences by their combined and confederated force," according to the observation of the same philosopher, "ought to be the true and brief way of confutation and suppression of all the smaller sort of objections[4]." He can also rid himself at once of those trifling and minute inquiries, which whilst they waste his labour, contract his genius and perplex his judgment, are frivolous in themselves, and unworthy his attention. Thus by reflection from science to science, intellectual light is redoubled

[4] De Augm. Scient. lib. i. p. 40.

and concentrated; and as it diffuses itself with impartiality and perspicuity over the whole field of learning, it is like that of the sun breaking through a cloud, which dispels the mists and vapours that surrounded the bewildered traveller, and enables him to overcome all the difficulties and obstructions which beset his journey.

Thus enlarged in his views and cleared of his impediments, and raised by a general elevation above the level of the particular parts of science, the student can descend to the cultivation of each with every fair and advantageous prospect of success. Whilst he withdraws his attention from the general scene to particular objects, he is still mindful of the keeping and consistency of the whole. He sees them in their connexion and dependence upon each other, and without being in danger of mixing and confounding them together, he avails himself of the assistance which they mutually lend and mutually borrow. In their separate cultivation, he consults the nature and genius of each, and actuated by liberal and impartial motives, he pursues each in its own way as it leads him

by a clue of reasoning to truth and happiness, and finally conducts him to their sublimest height, even to their abode near the footstool of the Almighty.

But amidst scenes of knowledge so various and extensive as those which are displayed in the universal theatre of truth, some objects may be clearly and distinctly viewed by the naked eye; whilst others are not to be discovered without the help of instruments skilfully applied; and others from their remoter distance or more refined tenuity vanish entirely out of sight. Whilst many subjects of inquiry burst fully upon the understanding by their native force and evidence; others, though discoverable, are in themselves more obscure and intricate; and others perhaps more numerous than both lie beyond the verge of all mortal cognizance.

To distinguish in this general scene of things what is light and what is darkness—what he can know, and what he cannot know; and then to mark the different force and clearness of the light, and the different shades in which it is dispensed—the modes

and degrees in which he knows, are objects of the last importance to the philosophical inquirer, both for the apprehension of truth and the detection of error.

These important objects will be more easily and effectually secured by the help of such a general chart; which as it estimates and displays the principles of all true learning, will exclude every thing not possessed of such principles, thereby determining what is knowable from what is not, and deciding between what is light and what is darkness. And as it places those parts of truth which are within the verge of human comprehension in juxtaposition with each other, by affording him an easy opportunity of comparing them together in every relation, in their principles, in their reasoning, and their truth, it will enable him from these comparisons to furnish himself with a general scale or common measure, by which to ascertain the particular nature and relative force of every kind of truth and to adjust them with precision.

Thus by the help of this intellectual scale he will be enabled to range truths above each other so far as relates to their convic-

tion, according to their respective evidence, and the assent to which they are respectively entitled, and to mark from its operation in each, the exact proportion and degree of the strength or weakness of human reason.

Though possessed neither of the instrument nor the means of boundless knowledge, he will find that the Author of all truth hath supplied him with what is sufficient of both for the purposes of human life, and for the pleasures of intellectual enjoyment; and the more he knows, the more will he rest satisfied in that sufficiency. By applying his reason, the instrument, fairly and logically to the different subjects, which are the means, that present themselves before him, he will find whether they can supply him with sound principles of judgment, and what those principles are. Thus he will secure the former of these objects by discovering the capacity and extent of reason, and what lies within and without its reach. And by the application of the instrument fairly and logically to the subjects, which are the means, constituting all the different kinds of truth in their respective provinces, and by a compa-

rative estimate between them, he will ensure the latter, by distinguishing the modes and degrees of knowledge.

Thus by submitting to the nature and the constitution of things through the whole of its instrumental employment, the logic he applies will neither lead him away from truth into speculative dreams by fancied objects which in fact have no foundation; nor into the endless maze of error and confusion by sending him in pursuit of truths which are above his comprehension. But what is of still more importance to the great cause of learning, as involving an evil which is more generally incurred, he will not be in danger of misleading his judgment and betraying his assent by the expectation of stronger or different evidence, than the nature of the subjects and the truths resulting from them can afford, that is, by requiring more or less than they are calculated to afford.

A logic so general in its views and appropriate in its method, will on the contrary both abridge his labour and ensure his success. It will abridge his labour by cutting off all that is useless and superfluous,

which vainly attempts to search after truths that have no existence, or which as vainly struggles after those which it can never reach. And it will promise him success by directing his researches right, and confining them within the proper track in which the truth in question can be found, as well as by aiding and conducting him through every stage of the inquiry.

And since both the means which supply the principles, however different from each other, are at all times and to all persons in themselves the same, and also the instrument, viz. reason, however it may differ in degrees of strength with times and persons, is the same essential faculty in all; the end which is truth, however various in kind, if faithfully sought and successfully found, will be unchangeably and individually the same to all.

Where then is error, that many-headed monster which goes on triumphing and to triumph, though not conquering and to conquer (since truth will be victorious at last is the faithful promise of One on whom we can steadfastly rely), and leading thousands captive in her train?—She lies hidden under

the toils of a dark and partial logic, by which the learned have suffered themselves to be enslaved, and which by its various artifice and chicanery, gives to some of the worst of falsehoods the privilege to wear the face of even the best of truths.

In the pursuit of a plan which embraces so many different and distant objects, I shall have occasion to visit the sources of the arts and sciences, and to run the circuit of general learning; but whatever may be my failings in the execution of a design stretched over so wide and various an extent (which I fear will be many), let me in some measure bespeak their pardon, and endeavour to atone for them in the outset, by a promise, to be plain and undisguised in every part. I had much rather betray my own ignorance and want of ability than attempt to impose upon the judgment of others[5].

[5] Neque enim aut confutationum triumphis, aut antiquitatis advocationibus, aut authoritatis usurpatione quadam, aut etiam obscuritatis velo, aliquam his nostris inventis majestatem imponere aut conciliare conamur; qualia reperire non difficile esset ei, qui nomini suo, non animis aliorum lumen affundere conaretur. Non (inquam) ullam aut vim

As far therefore as the plan will allow, I should wish to pursue the initiative method; not that which begins with definitions and proceeds by dogmas, which obtrudes itself upon the judgment and expects to be believed; but that which puts the mind upon inquiry and solicits to be examined; not that which seeks popularity as its dearest object by gratifying the indolent, who form indeed too great a majority; in which the author has only to select a subject interesting to the superficial and sentimental feelings, and capable of much adventitious ornament, and by a fashionable and sonorous diction, to hide his ignorance and to ensure his fame[6]; but that which invites the active and inquisi-

aut insidias hominum judiciis fecimus aut paramus; verum eos ad res ipsas et rerum fœdera adducimus; ut ipsi videant, quid habeant, quid arguant, quid addant, atque in commune conferant. Nos autem si qua in re vel male credidimus, vel obdormivimus et minus attendimus, vel defecimus in via et inquisitionem abrupimus; nihilominus iis modis res nudas et apertas exhibemus, ut errores nostri, antequam scientiæ massam altius inficiant, notari et separari possint; atque etiam ut facilis et expedita sit laborum nostrorum continuatio. Bacon. De Augm. Scient. Præf.

[6] Haud facile quis verbis assequatur, quantam calamitatem attulerit hoc ipsum quod dicimus: quod homines, ingenita superbia et gloria vana, eas materias tractationum,

tive in the spirit of philosophy to go along with it, in which he lays himself fairly and freely open, solely and honestly devoted to the interests of truth[7].

." One of these methods," says Lord Bacon, " delivers popular subjects as to the illiterate; the other, sciences as to the sons of science:" and the latter is that which alone can be worthy of the author, or of his audience. Popularity is an idol to which the ambitious may bend the knee. Truth is that divinity which a philosopher need not blush to worship.

eosque modos tractandi sibi delegerint, quæ ingenia ipsorum potius, commendent, quam lectorum utilitatibus inserviant. Optime Seneca, " Nocet illis eloquentia, quibus non rerum facit cupiditatem sed sui:" siquidem scripta talia esse debent, ut amores documentorum ipsorum, non doctorum excitent. Ii igitur recta incedunt via, qui de consiliis suis id prædicare possint, quod fecit Demosthenes, atque hac clausula ea concludere, " Quæ si feceritis, non oratorem duntaxat in præsentia laudabitis, sed vosmet ipsos etiam, non ita multo post, statu rerum vestrarum meliore." Ego certe, ut de me ipso, quod res est, loquar, et in iis quæ nunc edo, et in iis quæ in posterum meditor, dignitatem ingenii et nominis mei (si qua sit) sæpius sciens et volens projicio, dum commodis humanis inserviam. Bacon. De Augm. Scient. lib. vii. cap. i.

[7] When we set out in pursuit of truth as of a stranger, and not in search of arguments to support our acquaintance with preconceived opinions; when we possess ourselves in a

And if in pursuing an argument, which from its vast and universal moment has been often treated, we should go wide of the common road, (not from a love of novelty which I disclaim, but from that love of truth and utility which, in all temperance and humility, I avow), as I solicit examination and am under just correction, let me confess I had rather commit errors in a new way, though more dangerous and difficult to be found, than walk more safely and indolently over ground which has been beaten a

perfect indifference for every thing but known and well-attested truth; regardless of the place from whence it comes, or of that to which it seems to be going; when the mind, I say, is in this state, no one, I think, can fairly suspect the reality of its attachment. Warb. Div. Leg. book iv. p. 12.

Nos æterno veritatis amore devicti, viarum incertis et arduis et solitudinibus nos commisimus; et divino auxilio freti et innixi, mentem nostram, et contra opinionum violentias et quasi instructas acies, et contra proprias et internas hæsitationes et scrupulos, et contra rerum caligines et nubes, et undequaque volantes phantasias, sustinuimus; ut tandem magis fida et secura indicia viventibus et posteris comparare possemus. De Augm. Scient. Præf. p. 10.

Postremo omnes in universum monitos volumus, ut scientiæ veros fines cogitent; nec eam aut animi causa petant, aut ad contentionem, aut ut alios despiciant, aut ad commodum, aut ad famam, aut ad potentiam, aut hujusmodi inferiora, sed ad meritum et usus vitæ, eamque in charitate perficiant et regant. De Augm. Scient. Præf. p. 11.

thousand times. It is only by trying many and different roads to knowledge, that men can hope to discover the right path to her temple.

Sensible how great, how various, how extensive is the work we undertake; fearful of degrading by mixtures of human weakness that ineffable Wisdom, which in part we are attempting to display, and deeply conscious of my own defects,—I feel the task I have proposed too heavy for my unassisted abilities.—"O send her out of thy holy heavens and from the throne of thy glory, that being present she may labour with me, for she knoweth and understandeth all things; and she shall lead me soberly in my doings and preserve me in her power[8]!"

[8] Wisdom, ix. 10, 11.

CHAP. I.

MATHEMATICS.

SECT. I.

Of the Logic of Mathematics.

EVERY thing which is the subject of human knowledge belongs either to mind or body.

The two parts of learning metaphysic and logic which have been touched in a summary way in the preceding pages, treat more immediately of mind, its powers and operations, its acts and energies. The former, producing by speculation the general principles of all other parts of knowledge, or at least affecting to produce them, is the universal science. The latter, descending more practically to the particular investigation and establishment of the principles of

each as they exist in nature and affect the mind, and then pursuing them in a just and rational way into all their different effects, is the universal art. In universality this as well as in many other respects they have a close connection and affinity with each other[1]. All the other sciences and arts, as has been before observed, apply to particular subjects[2] which are of different kinds and various extent.

Physics form the science which treats more immediately of body or matter organized, its properties and affections, its motions and operations, its qualities and internal structure.

Between these sciences of mind and body, lies one which is intermediate and which partakes of both, taking its subject from the sensible qualities of body, but having it perfectly separated therefrom and made abstract

[1] Aristot. Metaph. lib. iv. cap. 2.

Μόνη δὲ ἡ πρώτη φιλοσοφία καὶ ἡ διαλεκτικὴ ὑποκειμένων ἔχει πάντα τὰ ὄντα.—Philoponus in 1 Post. Analyt.

[2] Ἑκάστη μὲν ἐπιστημη περὶ ἕν τι γένος καταγίνεται.—Philoponus in 1 Post. Analyt.

by an act of mind[3]. This intermediate science is mathematics, which as it is related to both, becomes the connecting link by which they are united in the grand system of knowledge. The transition from metaphysics and general logic, to the particular logic of physics and the other parts of learning, will be made aptly and advantageously through the mathematics.

[3] Aristotle distinguishes the three sciences thus, *ἡ μὲν γὰρ φυσικὴ περὶ ἀχώριστα μὲν, ἀλλ' οὐκ ἀκίνητα· τῆς δὲ μαθηματικῆς ἔνια περὶ ἀκίνητα μὲν, οὐ χωριστὰ δὲ ἴσως, ἀλλ' ὡς ἐν ὕλῃ· ἡ δὲ πρώτη καὶ περὶ χωριστὰ καὶ ἀκίνητα·*—Aristot. Metaph. lib. vi. cap. i. Which is thus explained by Du Val—Physica quidem versatur circa substantiam mobilem et materialem: Mathematicæ puræ agunt de rebus reipsa mobilibus, et a materia sensibili re inseparabilibus, sed tamen ea ratione qua sunt immobiles, et cogitatione separatæ; vel, quod idem est, prout in sui consideratione, materiam sensibilem non includunt. Ut ergo physica, mobilium et inseparabilium; mathematica vero, velut immobilium et separabilium; sic metaphysica est revera immobilium, æternorum, separabilium, et divinorum contemplatrix. Doct. Peripat. Synop. p. 22. And again Aristotle distinguishes mathematics both from physics and metaphysical forms, *ἔτι δὴ παρὰ τὰ αἰσθητὰ καὶ τὰ εἴδη, τὰ μαθηματικὰ τῶν πραγμάτων εἶναί φασι μεταξύ, διαφέροντα τῶν μὲν αἰσθητῶν, τῷ ἀΐδια καὶ ἀκίνητα εἶναι· τῶν δ' εἰδῶν, τῷ τὰ μὲν πόλλ' ἄττα ὅμοια εἶναι, τὸ δὲ εἶδος αὐτὸ, ἓν ἕκαστον μόνον.*—Metaph. lib. i. cap. vi, which is thus explained by another commentator.—Indicat Aristoteles Platonem aliud adhuc genus rerum posuisse [principalium] a rebus sensibilibus et ab ipsis ideis diversum. Nam, præter sensibilia et suas formas, res mathematicas constituit, quas

This science is confined to the predicament of quantity, which being of two kinds magnitude and multitude, that is, quantity continuous and quantity discrete, the first bounded and defined by figure, the second bounded and defined by number, is accordingly divided by these different subjects into two collateral correspondent branches geometry and arithmetic[4]. And as they are the simplest in their principles, the clearest in their reasoning, and the most convincing in their truth, the logic of both will be properly introductory to that of the other parts of learning, which are more complicated in their nature, and more involved in their construction.

medias esse dixit inter res sensibiles et inter ideas; et differunt a sensibilibus, quod sempiterna sunt et immobilia entia mathematicæ, sicut ideæ quoque sunt; a formis autem et ideis distant, quod pleraque mathematicæ similia sunt inter se, hoc est, quod plura sint ejusdem speciei individua, ut plures trianguli æquum laterum, plura quadrata, et sic deinceps. Forma autem ipsa et idea unaquæque unum quoddam sit tantum. Ita ut res mathematicæ sint inter res sensibiles et inter ideas, quia de utrisque aliquid commune habent, et tamen ab utrisque rursus differunt. Joan. Ludov. Havenruterius Comment. in locum.

[4] Aristot. Categ. cap. vi.

SECT. II.

Of Mathematical Principles.

EXTERNAL nature is the archetype and original of all our sensations and of many of our ideas; and the evidence of the external senses, exercised upon the superficial properties of innumerable bodies with which they are familiarly and perpetually conversant, viz. their length, breadth, and depth[1], and other exterior qualities; and again, as familiarly and incessantly employed upon many different objects, which they cannot avoid distinguishing as individuals or monads, is undoubtedly the primary principle of mathematical learning in both its branches.

This is every where the doctrine of Aris-

[1] Καὶ γὰρ ἐπίπεδα καὶ τερεὰ ἔχει τὰ φυσικὰ σώματα, καὶ μήκη, καὶ τιγμὰς, περὶ ὧν σκοπεῖ ὁ μαθηματικός.—ἀλλ' οὐχ ᾗ φυσικῦ σώματος πέρας ἕκαστον· οὐδὲ τὰ συμβεβηκότα θεωρεῖ ᾗ τοιούτοις ὅσι συμβέβηκε· Διὸ καὶ χωρίζει· χωριτὰ γὰρ τῇ νοήσει, κινήσεώς ἐστι· καὶ οὐδὲν διαφέρει, οὐδὲ γίνεται ψεῦδος χωριζόντων.—Aristot. Nat. Ausc. lib. ii. cap. 2.

totle[2], who as well as Plato has very philosop ically remarked, that whereas many of the properties of body are confined to particular senses, those few which are the subject of mathematics are common to all the senses[3].

These external and obvious properties of natural body constitute the qualities of what is called mathematical body, if we may be allowed to give the name of body to that which is ideal; for all the other qualities and attributes of natural body being abstracted and taken away by an act of the mind, they are conceived to be left alone, and to exist separate and independent of the bodies from which they are originally taken, constituting what are properly and logically termed ideas. These separate and abstract ideas are units or monads, points, lines, angles, circles, superficies, solids, equality and inequality[4], and some others, which are

[2] Metaph. lib. xi. cap. 1—3.

[3] Κοινὰ δὲ, κίνησις, ἠρεμία, ἀριθμὸς, σχῆμα, μέγεθος. τὰ γὰρ τοιαῦτα ἰδεμιᾶς ἐστιν ἴδια, ἀλλὰ κοινὰ πάσαις.—Aristot. De Anima, lib. ii. cap. 6.

[4] Τὸ μὲν γὰρ περιττὸν εἶναι καὶ τὸ ἄρτιον, καὶ τὸ εὐθὺ καὶ τὸ καμπύλον, ἔτι δὲ καὶ ἀριθμὸς, καὶ γραμμὴ, καὶ σχῆμα ἄνευ κινήσεως.—Aristot. Nat. Ausc. lib. ii. cap. 2.

likewise denominated universal forms. The abstraction, by which they are collected from the senses exercised upon many individual objects, is performed in a way so perfectly obvious and familiar, and with so much ease and perspicuity, that they seem to present themselves to the mind immediately[5], and without the application of inductive reasoning[6].

Thus mathematical science may be considered as beginning its career with general ideas or abstracted forms[7]. This is a sin-

[5] Λανθάνουσι δὲ τοῦτο ποιοῦντες, καὶ οἱ τὰς ἰδέας λέγοντες. Τὰ γὰρ φυσικὰ χωρίζουσιν ἧττον ὄντα χωριστὰ τῶν μαθηματικῶν.—Aristot. Nat. Ausc. lib. ii. cap. 2.

[6] Ἐνταῦθα γὰρ τὸ μὲν ὅτι, τῶν αἰσθητικῶν εἰδέναι· τὸ δὲ διότι, τῶν μαθηματικῶν· ὅτοι γὰρ ἔχουσι τῶν αἰτίων τὰς ἀποδείξεις, καὶ πολλάκις οὐκ ἴσασι τὸ ὅτι· καθάπερ οἱ τὸ καθόλου θεωροῦντες, πολλάκις ἔνια τῶν καθ' ἕκαστον οὐκ ἴσασι δι' ἀνεπισκεψίαν. Ἔτι δὲ ταῦτα, ὅσα, ἕτερόν τι ὄντα τὴν οὐσίαν, κέχρηται τοῖς εἴδεσι. Τὰ γὰρ μαθήματα, περὶ εἴδη ἐστίν· ὁ γὰρ καθ' ὑποκειμένου τινός. εἰ γὰρ καὶ καθ' ὑποκειμένου τινὸς, τὰ γεωμετρικά ἐστιν· ἀλλ' οὐχ ᾗ γεωμετρικὰ, καθ' ὑποκειμένου.—Aristot. Analyt. Post. lib. i. cap. 13. See Barrow's Lectiones Mathematicæ.

[7] Linearum rectarum et circulorum descriptiones, in quibus geometria fundatur, ad mechanicam pertinet. Has lineas describere geometria non docet. Postulat enim ut tiro easdem accurate describere prius dediscerit quam limen attingat geometriæ; dein quomodo per has operationes problemata solvuntur, docet; rectas et circulos describere problemata sunt, sed non geometrica, ex mechanica postu-

gular essential privilege, and in their further consideration, we shall find this branch of learning is possessed of many other eminent and exclusive advantages.

One advantage is, that these general or rather universal ideas are immediately capable of being ascertained with a logical precision, and conveyed by clear and adequate definitions in a language which is the most direct and obvious, and which cannot be misunderstood. Geometry defines a point, line, angle, triangle, circle, and any other mode of continuous quantity, the less general by the more general, in terms which are appropriate, and possessed of all possible accuracy and precision; so that, if the terms be once understood, the ideas they represent cannot possibly be misconceived. Hence a mathematical definition will not only carry with it the utmost light and conviction, but will produce exactly the same effect in one mind as in another, without the smallest shade of variation. And whatever number of units

latur horum solutio, in geometria docetur solutionum usus: at gloriatur geometria quod tam paucis principiis aliunde petitis tam multa præstat.—Newtoni Præf. in Princip.

or monads constitute any idea of quantity discrete, (and these ideas are innumerable) by the admirable dexterity and address of the arithmetician in the arrangement of numbers into stated classes and collections, general and less general, formed out of each other and distinguished by appropriate names, as they rise into higher and more complex orders, tens, hundreds, thousands, &c. (an invention entitled to the gratitude of all ages and countries), its language remains definitive, and its ideas however complex and collective when thus expressed, remain incapable of misapprehension. Thus if of thousands we take one, of hundreds seven, of tens eight, and of units nine, we have at once an adequate definition of the idea, or collective number of the years of the Christian æra, 1789.

Another advantage similar to this and by which it is heightened and completed, is that its ideas thus adequately and easily defined are capable of being exhibited and presented to the eye in an obvious external shape. The diagram of a square, circle, or other figure, though it cannot be a complete

representation of the idea, is sufficient to convey the definition through the sight directly into the understanding; and the signs of number which we call figures, with the order in which they are set down 1789, form a clear and exact representation which puts the mind in immediate possession of the full force of the definition—an invention which we owe to our more modern intercourse with the east, and which the ancient mathematicians, though they had formed some useful arrangements of numbers, did not enjoy, and which though little regarded is one of the first and most important, either in the improvement of the useful and commercial arts, or in the annals of science. This artifice or mechanism of expression addressed to the sight, which forms the readiest and most familiar interpreter to the mind, or even to the touch (for the great Sanderson is said to have been born blind), gives a superior ease and perspicuity to mathematics through all the stages and progressions of that luminous science.

Thus the mathematics possess an extraordinary advantage in the clearness and precision

both of their ideas and in their language, and also in the facility they derive from being capable of being brought before the sight, the readiest and most perfect of our senses.

Into whatever extent or variety these ideas may run, whether through all the forms and constructions of figure, or through all the classes and combinations of number, and however complex and multiform they become, they are only different modifications of one and the same kind, or as Mr. Locke chooses to express it of the same idea, without the mixture or addition of any other; on which account he has distinguished them by the name of simple modes, a distinction which however expressed is very philosophically made. They are formed by adding unit to unit and line to line through all the modifications of number and figure, without the mixture of any thing else: from which circumstance the science in question derives this great and exclusive privilege, that its ideas are totally separate and distinct from those of every other kind.

And however numerous and various they may be, it is another advantage to the pre-

cision of the science to which they belong that every one is absolute and unchangeable in itself, that is, it cannot be either greater or less[12], or any way different from what it exactly is, by partaking or communicating with any other even of the same kind. Two numbers differing only by one unit, or two angles by one degree, are as absolutely different from each other as those which are the most distant[13]. So that mathematical ideas are individually distinct from one another, as well as totally from those of other kinds, and are incapable of having any contraries, which is another very great advantage.

They have therefore only to do with themselves, at the same time that they stand perfectly independent of each other; and it is a further advantage by which they contribute

[12] Quantitas non recipit majus aut minus.—Aristot. Ἔτι τῷ πόσῳ οὐδέν ἐστιν ἐναντίον.—Οὐ δοκεῖ δὲ τὸ πόσον—ἐπιδέχθαι τὸ μᾶλλον καὶ τὸ ἧττον.—Categ. c. vii.

[13] Two is as different and distinct from one, as from a thousand; but ideas of good and evil, hot and cold, hard and soft, and of the different colours, participate with each other, and are more or less akin, varying into shades compounded of their proximates, and having their difference according to their distance.

to the illumination of this science, that all the differences between themselves are most minutely and distinctly marked and ascertained. It is the exclusive privilege of both the kinds of quantity to supply a certain measure or standard, not only to themselves, but to every other subject in the universe capable of mensuration[14]. Extension or continuous quantity is measured by any fixed part or division of itself, as by an inch, a foot, and other stated lengths formed out of each other; and number, which is discrete, is measured by stated portions or classes of number, as by tens, hundreds, and so on, as they rise in due order above each other. So that any part, form, collection, or relation of such ideas can be easily compared with others, and pronounced to be exactly equal or unequal, greater or less, or in a certain ratio: whereas the subject of other parts of knowledge, which are the qualities of body, as hot and cold, hard and

[14] Fundatur geometria in praxi mechanica, et est nihil aliud quam mechanicæ universalis pars illa, quæ artem mensurandi accurate proponit ac demonstrat.—Præf. Newtoni in Princip.

soft, or the affections of mind, good and evil, with innumerable others, have no certain measure or criterion to determine the judgment; and, after the best and most exact comparisons that can be made, one quality can only be pronounced to be more or less than another, like or unlike, in different degrees, by a more vague and uncertain determination [15].

From such adequate definitions of these general ideas thus artfully and mechanically expressed, so different and distinct from all

[15] Ἴδιον δὲ μάλιστα τῶ πόσου, τὸ ἴσόν τε καὶ ἄνισον λέγεσθαι· ἕκαστον γὰρ τῶν εἰρημένων πόσων, ἴσόν τε καὶ ἄνισον λέγεται. Οἷον σῶμα, ἴσόν τε καὶ ἄνισον λέγεται, καὶ ἀριθμὸς, καὶ χρόνος, ἴσος καὶ ἄνισος λέγεται. Ὡσαύτως δὲ καὶ ἐπὶ τῶν ἄλλων τῶν ῥηθέντων, ἕκαστον ἴσόν τε καὶ ἄνισον λέγεται. Τῶν δὲ λοιπῶν, ὅσα μὴ ἐστι πόσα, ὑ πάνυ ἂν δόξαιεν ἴσον τε καὶ ἄνισον λέγεσθαι, οἷον, ἡ διάθεσις, ἴση τε καὶ ἄνισος ὑ πάνυ λέγεται, ἀλλὰ μᾶλλον ὁμοία καὶ ἀνομοία, καὶ τὸ λευκὸν, ἴσόν τε καὶ ἄνισον ὑ πάνυ, ἀλλὰ μᾶλλον ὅμοιον. Ὥστε τῶ πόσου μάλιστα ἂν εἴη ἴδιον, τὸ ἴσόν τε καὶ ἄνισον· λέγεσθαι.—Aristot. Categ. cap. vi. Edit. Morel. Par. 1562.

Natural philosophers have indeed invented with acute address and ingenuity various instruments for the mensuration of the qualities of things. This is done by applying them in some medium or other, in which they are differently affected, to a graduated scale: and thus they have availed themselves, as well as they can, of that exactness and precision which properly belong to quantity alone.

other kinds, so absolute and unchangeable in themselves, and which admit of having their equality, inequality, and proportion exactly measured and ascertained, a few simple propositions are formed, to which they apply, which are the most general that can be made; the truth and certainty of which, upon comparing their ideas, strike so forcibly upon the understanding, and are so strongly and palpably felt, that as soon as pronounced they irresistibly compel conviction.

Their truth is indeed so direct and obvious, that some philosophers assert that it results from an instinctive impulse of the mind which they call intuition, without the exercise of any act of reasoning at all; whilst others have perhaps more truly and philosophically determined, that where there is an act of comparison, there is an act of judgment, and where there is an act of judgment, there is an act of reasoning[16], although

[16] "Under the word reason, I comprehend the intuition of the truth of axioms" (meaning mathematical): "for certainly to discern the respect which one term bears to another, and from these to conclude the proposition necessarily

the truth results immediately and is therefore properly self-evident, but not intuitive.

These general propositions so formed are the axioms of mathematical science, which easily and securely constitute the secondary principles, from which reason derives all its numerous and extensive operations and into which they are ultimately to be resolved.

And now that we are upon the subject of mathematical principles, I beg leave to make a distinction, which however new, may prove of great and general importance to the more easy discovery, and more successful cultivation of all the different kinds of truth.

Intuitive and self-evident are terms used promiscuously by philosophers and logicians as perfectly synonymous, which has, I apprehend, been the cause of introducing much error and obstruction into general science. To mathematical axioms they have both been attributed with the fullest confidence,

true, is an act of reason, though performed quick or perhaps all at once."—Wollaston's Religion of Nature, sect. iii. Note.

because their truth is so direct and palpable, that mathematicians think they cannot do them more than sufficient honour by affording them so strong an appellative. And as these axioms are so obvious in formation and so easy in apprehension, no injury has been derived to this science from the mistake. But when philosophers and logicians assert that all other axioms are likewise both intuitive and self-evident, great evils arise from this false idea; as it precludes inquiry, and secures them by an invincible bar against all further examination and reasoning, which from this false persuasion they fastidiously reject and spurn.

So far however from being intuitive, the axioms of all other kinds of knowledge are the consequences and deductions of the most attentive reasoning and laborious investigation, constituting the most useful and honourable part of human learning; whereas if they were intuitive, they would flash direct conviction on the minds, as external objects do on the senses, of all men.

But though self-evidence is very distinct from intuition, all axioms though not intui-

tive may be properly said to be self-evident; because in their formation reason judges by single comparisons, without the help of a third idea or middle term[17]. Thus they are not indebted to any other for their evidence, but have it in themselves; and though inductively framed they cannot be syllogistically proved. Till axioms are either legitimately established or presumptively assumed, the middle term is indeed no where to be found; and, so far from deriving from thence their evidence, it derives itself from them. They are therefore properly and logically said to be immediate[18]. It is in this sense that all axioms are pronounced and should be understood to be self-evident, because immediate and incapable of syllogistic proof by means of a middle term.

Intuition is therefore properly attributed and should be carefully restricted, to those instinctive faculties and impulses external and internal, which act instantaneously and

[17] See page 46, 47.

[18] Αἱ γὰρ ἄμεσοι προτάσεις ἀρχαί.—Aristot. Analyt. Post. lib. i. cap. 29.

irresistibly [19], which were given by nature as the first inlets of all knowledge, and which we have called the primary principles, whilst self-evidence may be justly and properly attributed to axioms or the secondary principles of truth.

This distinction I am induced to make in the sanguine hope, that if justly considered and attended to, it will effectually contribute to the improvement of all learning in the act of constituting the principles, that is, of distinguishing the evidences and establishing the axioms of all the different parts of knowledge—a point which every philosopher will acknowledge to be of the last importance to general science. "I apprehend," says one in the conclusion of his remarks on the Organon of Aristotle, "it is a subject of such consequence, that if inquisitive men can be brought to the same unanimity in the first principles of the other sciences, as in those of mathematics and natural philosophy (and why should we despair of a general agree-

[19] See page 27.

ment in things that are self-evident?) this might be considered as the third grand era in the progress of human reason[*].

Sect. III.

Of Mathematical Reasoning.

THIS species of reasoning is employed in investigating the relations of such abstract and general ideas, as are possessed of those other qualifications which have been noticed in the preceding pages, by reducing them under axioms or secondary principles, which are universal propositions; and the method it pursues is consequently the most perfectly and purely syllogistic[1].

As mathematical science has a subject, so

[*] Dr. Reid, in the Appendix to Lord Kaims's third volume of Sketches.

[1] Aristotle says that all mathematical reasoning is reducible to syllogisms in the first of the three figures which is the most pure and perfect, and by which all other kinds of syllogisms that are sound and legitimate are finally to be tried.—Analyt. Post. lib. i. cap. 14.

its reasoning has a language, peculiar and appropriate to itself; but, when analyzed, it is reducible to the following process.

The mathematician may be considered from the beginning, as taking his ideas in their general form. Every proposition composed of such ideas is therefore general; and those which are theoretic are reducible to two parts or terms, a predicate and a subject, with a copula affirmative or negative, but generally the former. If the agreement or the relation between the two terms be not immediate and self-evident, he has recourse to an axiom which is still more general, and which supplies him with a third or middle term[1]. This he compares first with the predicate, and then with the subject, or vice versa. These two comparisons when drawn out in form make two propositions, which are called the premises; and if they happen to be immediate and self-evident, the conclusion consisting of the terms of the question proposed, is said, without further process, to

[1] The middle term is the subject of a more general proposition than that of the question, and the predicate the same in both.—See page 47 of this volume.

be demonstrated[3]. Which method of reasoning is conducted exactly in the syllogistic form[4] delivered by Aristotle with so much labour and particularity in the first book of his Analytics[5].

[3] Ἀνάγκη τὴν ἀποδεικτικὴν ἐπιστήμην ἐξ ἀληθῶν τ' εἶναι, καὶ πρώτων, καὶ ἀμέσων, καὶ γνωριμωτερων, καὶ προτέρων καὶ αἴτιων τῦ συμπεράσματος.—Aristot. Analyt. Post. lib. i.

[4] Συλλογισμὸς δέ ἐστι λόγος, ἐν ᾧ τεθέντων τινῶν, ἕτερόν τι τῶν κειμένων ἐξ ἀνάγκης συμβαίνει τῷ ταῦτα εἶναι.—Aristot. Analyt. Prior. lib. i. cap. 2.

[5] Every kind of syllogism is reducible to a categoric, and every categorical syllogism to one of the first figure; and in the premises of a syllogism of the first figure this is done—In the major proposition, or the axiom, the predicate of the question or conclusion (which is the same thing) is universally affirmed or denied of some general idea, which is the middle term: in the minor proposition, the subject of the question or conclusion is always affirmed or asserted to be a part of that more general idea or middle term. And the ground of this reasoning is this—Whatever may be affirmed universally of any idea, may be affirmed of any species or number of particulars comprehended under it, and vice versâ; upon the great logical maxim, "Dictum de omni et de nullo."

Fundamentum, quo nititur modorum omnium jam memoratorum vis (unde probetur conclusivos esse), est postulatum illud quod dici solet "Dictum de omni et de nullo:" quod tam per se evidens præsumitur, ut probatione non indigeat. Nimirum, "Quicquid de subjecto quopiam universaliter affirmatur vel negatur, id similiter vel affirmatur vel negatur de omni eo de quo hoc subjectum dicitur." Ut puta, quicquid universaliter affirmatur aut negatur de animali; similiter affirmatur vel negatur de quopiam ani-

Thus to axioms he adds another class of propositions called demonstrations, which though less general are of equal force, and which he applies, in the same way and by the same process, to the proof of relations which lie more distant and concealed. And as it is the peculiar privilege of this science, that all its ideas are general, and these general ideas inexhaustible, in pursuing all their various and multiplex relations, he can produce many demonstrations; which axioms and demonstrations he can apply by the same syllogistic process, to the proof of theorem after theorem almost *ad infinitum*[6]; and

mali, seu de omni eo quod est animal: puta de homine, de bruto, de Alexandro, de Bucephalo, alioque quopiam animali.—Wallis's Logic, book iii. chap. 5: and, if the reader would see at one short view the whole jet and force of all syllogistic reasoning, he cannot do better than read this chapter, "De fundamento Syllogismi, et Modis Figuræ Primæ."

[6] "The relations of quantity are so susceptible of exact mensuration, that long trains of accurate reasoning on that subject may be formed, and conclusions drawn very remote from the first principles. It is in this science and those which depend upon it, that the power of reasoning triumphs; in other matters its trophies are inconsiderable. If any man doubt this, let him produce in any subject unconnected with mathematics, a train of reasoning of some length, leading to a conclusion, which without this train of reason-

which syllogistic process is (to express it in a few words), to reduce general truths under more general, till they terminate in axioms, which are the most general[7].

In all mathematical subjects, the art of reasoning is from numbers and quantities which are known, to find or compute those which are unknown. This art in regard to number, is performed by common figures, and this is called arithmetic, or by letters of

ing would never have been brought within human sight. Every man acquainted with mathematics can produce thousands of such trains of reasoning. I do not say that none such can be produced in other sciences."—Dr. Reid's Appendix to Lord Kaims's Sketches, p. 281.

I think Dr. Reid might have pronounced that no such lengthened trains of reasoning can be produced in other sciences. And hence it is that syllogism, which is mathematical and constitutes the Aristotelian logic, is of very little use in other parts of learning. Upon this ground the following observation of the same author is very just. "The ancients seem to have had too high notions both of the force of the reasoning power in man, and of the art of syllogism as its guide. Mere reasoning [syllogistic] can carry us but a very little way in most subjects. By observation and experiments properly conducted, the stock of human knowledge may be enlarged without end; but the power of reasoning alone, applied with vigour through a long life, would only carry a man round like a horse in a mill, who labours hard but makes no progress.—Dr. Reid's Appendix to Lord Kaims's Sketches, p. 381.

[7] See chap. iv. § 2 of this volume.

the alphabet used as arbitrary symbols and quantities, and then it is algebra. With relation to quantity, it is performed by lines and geometrical figures, as symbols of quantities, and then it is known as geometry.

Such is the method of science or demonstration (belonging, I think, to quantity alone[s]), which has been justly celebrated and admired through every age, in which reason advances, by a sublime intellectual motion, from the simplest axioms to the most complicated speculations, and exhibits truth springing out of its first and purest elements, and rising from story to story in a most elegant progressive way, into a luminous and extensive fabric. The certainty of self-evidence attends it through every stage, and every link of the mathematical chain is of equal, that is, the utmost strength.

From the singular elegance and precision

[s] Here I am under the necessity of differing in opinion from Mr. Locke, who thinks that demonstration is not confined to quantity.—See Essay, book iv. chap. ii. § 9, and book iv. chap. iii. § 18. I shall have occasion to consider the opinion of this great man in some future part of these Lectures.

of mathematical reasoning, and the amazing feats which it has performed in its progressive career, from the vast extent to which it can be carried, and its wonderful effects in its application to some parts of physical learning, philosophers ancient and modern have not only held it in a just respect and veneration, but have been so enamoured of its beauty as to embrace and adopt it as the praxis and exemplar of universal logic[9]. This is a mis-

[9] "Thus we have taken a short view of the so much celebrated method of the mathematicians; which, to any one who considers it with proper attention, must needs appear universal, and equally applicable in other sciences. They begin with definitions. From these they deduce their axioms and postulates, which serve as principles of reasoning; and having thus laid a firm foundation advance to theorems and problems, establishing all by the strictest rules of demonstration. The corollaries flow naturally and of themselves. And if any particulars are still wanting, to illustrate a subject, or complete the reader's information, these that the series of reasoning may not be interrupted or broken are generally thrown into scholia. In a system of knowledge so uniform and well connected, no wonder if we meet with certainty, and if those clouds and darkness which deface other parts of human science and bring discredit even upon reason itself are here scattered and disappear."—Duncan's Logic, p. 188. See also p. 224. It was the great error of Aristotle's logic, that on this sole foundation he laboured to erect a universal instrument or organon for the investigation of truth in all other parts of learning, though springing from foundations very different and distinct from mathematical axioms.

take, fatal to the success of all other parts of knowledge, upon which I shall reserve myself to remark more particularly in some future stage of this work. For the present I shall only observe, that in this demonstrative reasoning, not only the middle terms and propositions are general, but that all other terms and propositions are also general. And here likewise I beg leave to appeal to the authority of Dr. Reid, who allows both the ancient and modern logic to be defective as an universal art, whether—"the ancients, who attended only to categorical propositions which have one subject and one predicate, and of these, to such only as have a general term for their subject[10],"—were not misled in their logic by the mathematics? And also whether—"the moderns, who have been led to attend only to relative propositions, which express a relation between two subjects, and these subjects always general ideas[11],"—were not likewise misled by the mathematics, when they founded the principle of their new

[10] Dr. Reid in the Appendix to Lord Kaims's third volume of Sketches p. 328.
[11] Ibid.

logic upon the axiom, "Things that agree with one and the same, agree between themselves[12]?" Hence they have confined their reasoning to general relations, and to the agreement and disagreement of ideas of quality as well as of quantity, measured by a third, just as a carpenter measures a piece of timber by the application of his rule[13].

[12] Nonnulli autem logici (nostri seculi, aut superioris) posthabita veterum probatione per "Dictum de omni et de nullo;" aliud substituunt illius loco postulatum, nimirum, "Quæ conveniunt in eodem tertio, conveniunt inter se." Atque ad hanc regulam exigentes singulos syllogismorum modos, inde conclusum eunt justam eorum consecutionem. Quique sic procedunt, negligere possunt eam distinctionem modorum perfectorum et imperfectorum; ut quæ ortum ducit ab ea methodo qua usi si sunt veteres, in probatione sua ab illo dicto.—Wallis's Logic, book iii. chap. 5.

[13] Mr. Locke is the great advocate for the perception of the agreement and disagreement of ideas being the criterion of all truth, and in exemplifying this great logical maxim he uses the following words: "When a man has in his mind the idea of two lines, viz. the side and diagonal of a square, whereof the diagonal is an inch long, he may have the idea also of the division of that line into a certain number of equal parts; v. g. into five, ten, a hundred, a thousand, or any other number; and may have the idea of that inch line being divisible or not divisible into such equal parts, as a certain number of them will be equal to the side line. Now, whenever he perceives, believes or supposes such a kind of divisibility to agree or disagree to his idea of that line, he as it were joins or separates those two ideas, viz. the idea of that line, and the idea of that kind of divisibility, and so makes

Of these two logics, both of which are partial and imperfect, the former is entitled to the preference; because when the general principles are once established, it is the guide to truth in all parts of knowledge; whereas, out of mathematics pure or mixed the latter can usefully apply to none. Hence the Aristotelian logic, with all its defects, has been rendered still more deficient by the moderns, from its more extensive misapplication[14].

a mental proposition, which is true or false, according as such a kind of divisibility, a divisibility into such aliquot parts, does really agree to that line or no. When ideas are so put together or separated in the mind, as they or the things they stand for, do agree or not, that is as I may call it, mental truth. But truth of words is something more, and that is the affirming or denying of words one of another, as the ideas they stand for agree or disagree."—Essay, book iv. chap. v. sect. 6.

[14] On the general subject of this chapter, consult Reid's Analysis of Aristotle's Logic; Brown's Philosophy of the Human Mind, lect. 50; Stewart's Elements, vol. ii. chap. 3; Campbell's Philosophy of Rhetoric, &c.—*Editor.*

Sect. IV.

Of Mathematical Truth.

WHEN such abstract and general ideas as are appropriated to mathematics in both its branches, which besides the exclusive privileges that have been enumerated are permanent and eternal, are thus syllogistically compared in their numerous relations, and ultimately brought to the test of a few simple axioms or universal propositions which are palpably and self-evidently certain, the truths that result from such an operation of reason must be eminently clear and luminous, bearing down all possibility of doubt, and carrying the most absolute and irresistible conviction. The reason of this greater certainty of mathematical truth is, that all mathematical propositions are acts of mind abstracted from the things themselves, and that the abstract evidence is clearer than that of things whose evidence depends merely on the senses.

This part of learning is therefore distinguished by the name of science, understood in its special and appropriate signification; and it is awarded by Aristotle to the province of the intellect or theoretic mind, as producing abstract, unchangeable[1] and necessary truths[2], which exclude from the understanding all kind of uncertainty, and also as containing in themselves the end for which they were contemplated[3].

[1] Περὶ τῶν μὴ ἐνδεχόμενων ἄλλως ἔχειν.—Aristot.

[2] Ἀλλ' ἔτι καὶ ἡ μαθηματικὴ θεωρητική. Ἀλλ' εἰ ἀκινήτων καὶ χωριστῶν ἐστι, νῦν ἄδηλον. Ὅτι μὲν ὄν ἔνια μαθήματα, ἢ ἀκίνητα καὶ ἢ χωριστά, θεωρεῖ, δῆλον.—Aristot. Metaph. lib. vi. cap. 1.

[3] Ἐπιστήμη μὲν ὄν τί ἐστιν, ἐντεῦθεν φανερὸν, εἰ δεῖ ἀκριβολογεῖσθαι, καὶ μὴ ἀκολωθεῖν ταῖς ὁμοιότησι· πάντες γὰρ ὑπολαμβάνομεν, ὃ ἐπιστάμεθα μὴ ἐνδέχεσθαι ἄλλως ἔχειν. Τὰ δὲ ἐνδεχόμενα ἄλλως, ὅταν ἔξω τῦ θεωρεῖν γένηται, λανθάνει εἰ ἔστιν, ἢ μή. Ἐξ ἀνάγκης ἄρα ἐστὶ τὸ ἐπιστητόν. Ἀΐδιον ἄρα. Τὰ γὰρ ἐξ ἀνάγκης ὄντα ἁπλῶς, ἀΐδια πάντα· Τὰ δ' ἀΐδια, ἀγένητα καὶ ἄφθαρτα. Ἔτι διδακτὴ πᾶσα ἐπιστημη δοκεῖ εἶναι, καὶ τὸ ἐπιστητὸν, μαθητέον.—Aristot. Ethic. Nicom. lib. vi. cap. 3. whence the science had the name Mathematics. Considered in their simple state, this observation may be just; but mathematics, when mixed with physics, or any subject capable of mensuration, produce other important ends, beyond what is contained in themselves. It is when considered in their simple state only, that the power of reason so prominently triumphs, for in this simple state it is alone

CHAP. II.

PHYSICS.

SECT. I.

The Logic of Physics.

THOUGH truth does not appear in the other departments of learning with that bold and irresistible conviction with which she presides in mathematical science, it shines through all, if not interrupted by prejudice or perverted by error, with a clear and useful though inferior strength. And as it is not necessary for his general safety or convenience that the traveller should always enjoy the heat and splendour of the mid-day

that long trains of reasoning can be formed. Of these the mathematician can produce thousands, which, though they may end in themselves, produce this further advantage, that they exercise the mind, strengthen the attention and memory, and habituate the reason to close and continuous efforts of patient investigation.

sun, whilst he can pursue his journey with more pleasure and convenience under the weaker influence of the morning or evening ray; so it is not requisite for the various concerns and purposes of life that men should be led by truth of the most redundant brightness.

On the contrary, it is in every view more useful and expedient for us, situated and circumstanced as we are, since Providence has left us in the confines of much darkness, to act and move under the shades of weaker yet sufficient evidence. Both reason and experience accordingly inform us, that the use and value of truth in general, as it is appointed in all its different divisions to attend us with its light through our transitory journey, does not bear any fixed proportion to its clearness and conviction.

Much of the most useful part of our knowledge is derived from a source different from that which has been just investigated; not from a few general ideas of two kinds of quantity abstracted and separated from all matter, but from the innumerable qualities

of individual and particular things as they are inherent and exist in matter—of all those bodies with which we are by nature every way surrounded, which are perpetually soliciting the external senses, and with whose uses we are immediately and necessarily concerned. To know their inherent powers and properties, their qualities and attributes, their motions and operations, their causes and effects, is to cultivate the various and extensive field of physics or natural philosophy.

Yet this part of learning, however it may differ from pure mathematics, is referred by the Peripatetic philosopher to the same province of mind, the speculative or theoretic intellect; because it derives its principles from those external subjects which it contemplates, and not from the exercise of the will respecting good or evil, nor from the internal resources of the mind contemplating and creating, as we shall hereafter find to be the case with ethics and poetry[1].

[1] Ἐπεὶ δὲ καὶ ἡ φυσικὴ ἐπιστήμη τυγχάνει ὅσα περὶ γένος τι τῶ ὄντος (περὶ γὰρ τὴν τοιαύτην ἐστὶν οὐσίαν ἐν ᾗ, ἡ ἀρχὴ τῆς κινή

Sect. II.

Of Physical Principles.

THE evidence of the external senses is obviously the primary principle from which all physical knowledge is derived.

But whereas nature begins with causes, which after a variety of changes produce effects, the senses open upon the effects, and from them, through the slow and painful road of experiment and observation, ascend to causes.

Man appears upon the stage of this material system as on a visionary theatre, in which he looks only upon the exterior of things, as the eye upon a flower that is full-

σεως καὶ τάσεως ἐν αὐτῇ) δῆλον ὅτι ἔστε πρακτικὴ ἐστιν ἔστε ποιητική. Τῶν μὲν γὰρ ποιητικῶν ἐν τῷ ποιοῦντι ἡ ἀρχὴ, ἢ νοῦς ἐστιν, ἢ τέχνη, ἢ δύναμίς τις· τῶν δὲ πρακτικῶν, ἐν τῷ πράττοντι ἡ προαίρεσις. Τὸ αὐτὸ γὰρ τὸ πρακτὸν καὶ προαιρετόν. Ὥστε εἰ ἡ ἅπασα διάνοια ἢ πρακτικὴ, ἢ ποιητικὴ, ἢ θεωρητικὴ, ἢ φυσικὴ θεωρητική τις ἂν εἴη.—Aristot. Metaph. lib. vi. cap. 1.

blown, or on an insect in all the pride and beauty of its colours; without observing immediately the different stages through which they have passed, the different forms they have assumed, the different changes they have undergone, and without descending to the seeds and principles from which they spring, and which upon examination will be found totally different both in form and colour. In like manner are the senses, the ultimate criteria of all physical knowledge, liable to be imposed upon and deceived in regard to the qualities and causes, the powers and operations of physical body[1].

The senses are therefore to be assisted by various observations taken with diligence and circumspection, and to be undeceived by different analyses, which divest Nature of her external and compounded form, and lay open

[1] Ædificium autem hujus universi, structura sua, intellectui, humano contemplanti, instar labyrinthi est; ubi tot ambigua viarum, tam fallaces rerum et signorum similitudines, tam obliquæ et implexæ naturarum spiræ et nodi, undequaque se ostendunt; iter autem, sub incerto sensus lumine, interdum affulgente, interdum se condente, per experientiæ et rerum particularium sylvas, perpetuo faciendum est.—Bacon. Nov. Org. Præf. See also Reid's Essays, vol. ii. p. 22, 290, &c.

her internal mechanism and construction. Their errors and misconceptions are to be corrected by the use of experiments of different kinds, which penetrate her inmost recesses, and descend to her remotest causes. By the application of such assistance they are enabled, not without difficulty[2], to leave behind the fallacious exterior, to pass from one phenomenon to another, and as far as human search can go, to judge of the elements of nature.

"The information which the senses give us," as the great friend and father of philosophers has observed[3], "is to be examined and corrected by various methods; for though they deceive us on some occasions, they themselves discover the errors into which they lead. But whereas the errors lie imme-

[2] Quin etiam duces itineris (ut dictum est) qui se offerunt, et ipsi implicantur; atque errorum et errantium numerum augent. In rebus tam duris, de judicio hominum ex vi propria, aut etiam de felicitate fortuita, desperandum est. Neque enim ingeniorum quantacunque excellentia, neque experiendi alea sæpius repetita, ista vincere queat. Vestigia filo regenda sunt: omnisque via usque a primis ipsis sensuum perceptionibus, certa ratione munienda.—Ibid.

[3] See Lord Bacon on the Advancement of Learning, Distrib. Op. p. 15.

diately before us, the indications of them are to be sought at a great distance.

"The senses are subject to a twofold defect. They may either desert or deceive us. Many subjects[4] elude their cognizance, however well they may be disposed and free from impediment, either from the tenuity of the whole object or the extreme minuteness of its parts, from the distance of its situation, the slowness or the velocity of its motion, its familiarity to the eye, and from many other causes. And again, where they fully appre-

[4] Air and fire are bodies of the most universal extent and operation in the material system. And the great Boerhaave, speaking of the latter, makes the following observation:—"So great is the power, so extensive the action, and so wonderful the manner wherein fire acts, that it was anciently held and adored as the supreme God by a nation reputed the wisest of all others. Thus some of the chemists, having found its extraordinary force, took it for an uncreated being, and many of the most eminent among them attributing all the knowledge they had acquired to this instrument, called themselves philosophers of fire, as thinking they could not be dignified by a higher title. There is however nothing more wonderful in the nature of fire, than that whilst it is the chief cause and principle of almost all the effects cognizable by our senses, itself is imperceptible by any sense, being so incomprehensible, by reason of its extreme minuteness, that it eludes our nicest research; so that with many it passes for a spirit rather than a body."—Boerhaave's Chemistry.

hend their object, they are not to be securely relied upon; for the testimony and information of the senses depend on the analogy and constitution of man, and not on those of the universe; so that to say that sense is the adequate measure or competent judge of things, is an assertion founded in mistake.

To obviate the imperfections of sense, philosophers are under the necessity, by much labour and attention, of calling in aid and assistance from every quarter, in order to supply the deficiency where the senses fail, and also to regulate and rectify them where they vary in themselves. This is effected not so much by the use of instruments as by the help of experiment. For experiments are much more penetrating and subtle than the senses, even when assisted by instruments of the most exquisite contrivance; I mean such experiments as are ingeniously invented, and applied with skill and address to the elucidation of the very thing which is the subject of inquiry. Philosophers do not therefore rely on the perception of the senses immediately applied, as in their natural and common exercise; but bring the matter of

From different experiments and observations made on the same individual subject, and from the same experiments and observations made on different subjects of the same kind, by comparing and judging he discovers some qualities, causes, or phenomena, which after carefully distinguishing and rejecting all contradictory instances that occur, he finds common to many. And thus from many collateral comparisons and judgments formed upon particulars he ascends to generals; and, by a repetition of the same industrious process and laborious investigation, he advances from general to more general, till at last he is enabled to form a few of the most general, with their attributes and operations, into axioms[3] or secondary principles, which are the established laws enacted and enforced by the God of Nature[4].

causarum istarum causas, et sic deinceps, donec ad primam causam perveniatur.—Horsley in Edit. Newt. Op. p. 495.

[3] Secundum nos, axiomata continenter et gradatim excitantur, ut nonnisi postremo loco ad generalissima veniatur. Ea vero generalissima evadunt, non notionalia, sed bene terminata, et talia quæ natura ut revera sibi notiora agnoscat, quæque rebus hæreant in medullis.—Bacon. Nov. Org. Præf.

[4] See Nov. Org. lib. i. aph. 104, 105.

Ad veram philosophiam pertinet rerum naturas ex causis

This is what Sir Isaac Newton who reduced the philosophy of Bacon to physical practice calls the analytic method:

"As in mathematics, so in natural philosophy," he remarks, "the investigation of difficult things by the method of analysis ought ever to precede the method of composition. This analysis consists in making experiments and observations, and in drawing general conclusions from them by induction, and admitting no objections against the conclusions, but those which are taken from experiments or other certain truths; for hypotheses are not to be regarded in experimental philosophy. And although the arguing from experiments and observations be no demonstration of general conclusions, yet it is the best way of arguing which the nature of things admits, and may be looked upon as so much the stronger, in as much as the induction is more general; and if no exception occur from phenomena, the conclusion may be generally pronounced.

vere existentibus derivare: eas vero leges quærere, quibus voluit summus Opifex hunc mundi pulcherrimum ordinem stabilire, non eas quibus potuit, si ita visum fuisset.—Cotes. Præf. in Newt. Princip.

But if at any time afterwards any exception should occur from experiment, it may then begin to be pronounced with such exceptions as occur. By this way of analysis we may proceed from compounds to ingredients, and from motions to the forces producing them; and in general from effects to their causes, and from particular to more general ones, till the argument end in the most general. Such is the method of analysis[5]."

This method of reasoning, founded on experiment and observation, by which the general ideas and forms[6] of natural philosophy are invented is purely and exclusively inductive. The schools are not the theatre in which this philosophical logic of physics is displayed[7]. It does not delight in external appearance and ostentatious formality. It

[5] Newton, sub fin. Optic.

[6] Inquisitio formarum sic procedit; super naturam datum primo facienda est comparentia ad intellectum omnium instantiarum notarum, quæ in eadem natura conveniunt, per materias licet dissimillimas. Atque hujusmodi collectio facienda est historice, absque contemplatione præfestina aut subtilitate aliqua majore.—Bacon. Nov. Org. lib. ii. Aph. 11.

[7] Rejicimus igitur syllogismum; neque id solum quoad principia (ad quæ nec adhibent), sed etiam quoad proposi-

retires from the clamour of verbal disputation into the retreat of the laboratory or observatory, where in silent investigation and by laborious operations, it lays the foundation of useful and substantial learning. And as it mixes with experiment and observation, and is incorporated with them, it is incapable of being adequately displayed by words and propositions, but is best seen and understood by attending it in the act, and pursuing it minutely through every stage of its analytical progression.

Such is the true and proper logic of physical science, not that which was employed by the ancient philosophers, the disciples of Pythagoras and the Lycæum. These sages (to speak with all reverence of such exalted characters, and to think of them

tiones medias: quas educit sane atque parturit, utcunque syllogismus; sed operum steriles et a practica remotas et plane quoad partem activam scientiarum incompetentes. Quamvis igitur relinquamus syllogismo et hujusmodi demonstrationibus famosis et jactatis, jurisdictionem in artes populares et opinabiles (nil enim in hac parte movemus); tamen ad naturam rerum, inductione per omnia et tam ad minores propositiones, quam ad majores, utimur.—Nov. Org. Præf.

with the gratitude due to their useful labours, without being a slave to their authority[8]), in haste to indulge in their national infirmity, —that vain and ostentatious parade of terms divorced from things and invented by themselves[9]—overlooked the true ground-work of all sound philosophy, experience and induction[10], and erected their notions and hypotheses into arbitrary principles[11]. Around these, their syllogisms which were no better than sophisms, might revolve with ease, and entertain them with a brood of false theories, which

[8] Pro certo habeant homines non sectæ nos alicujus aut placiti, sed utilitatis et amplitudinis humanæ fundamenta moliri.—Bacon. Nov. Org. Præf.

[9] Cum toti sint in rerum nominibus, non in ipsis rebus, sermonem quendam philosophicum censendi sunt adinvenisse, philosophiam tradidisse non sunt censendi.—Cotes. Præf. in Newton. Princip.

[10] De inductione vero dialectici vix serio cogitasse videntur; levi mentione eam transmittentes et ad disputandi formulas properantes.—Nov. Org. Præf.

[11] Itaque ordo quoque demonstrandi plane invertitur. Adhuc enim res ita geri consuevit; ut a sensu et particularibus primo loco ad maxime generalia advoletur, tanquam ad polos fixos, circa quos disputationes vertantur; ab illis cætera per media deriventur via certe compendiaria, sed præcipiti, et ad naturam impervia, ad disputationes vero proclivi et accommodata.—Nov. Org. Præf.

they honoured and embraced as the most substantial truths[12].

The experimental and inductive process philosophically conducted was too painful for the lazy, and too silent for the loquacious disposition of the Athenian schools. But what was most its adversary, it was too humiliating for that philosophic pride, unconscious of philosophy, by which they held the human mind in a kind of adoration. They thought, that by its native powers and independent action and reaction on itself, particularly when aided by a logic which assumed to be a universal

[12] The physics of Aristotle are full of those very self-creations which he so severely censures in the Pythagorean school. Οἱ μὲν ὂν καλούμενοι Πυθαγόρειοι, ταῖς μὲν ἀρχαῖς καὶ τοῖς στοιχείοις ἐκτοπωτέρως· χρῶνται τῶν φυσιολόγων. Τὸ δ' αἴτιον, ὅτι παρέλαβον αὐτὰς οὐκ ἐξ αἰσθητῶν. Διαλέγονται μέντοι καὶ πραγματεύονται περὶ φύσεως πάντα. Γεννῶσί τε γὰρ τὸν οὐρανὸν καὶ περὶ τὰ τούτου μέρη, καὶ πάθη καὶ τὰ ἔργα, διατηροῦσι τὸ συμβαῖνον· καὶ τὰς ἀρχὰς, καὶ τὰ αἴτια εἰς ταῦτα καταναλίσκουσιν, ὡς ὁμολογοῦντες τοῖς ἄλλοις φυσιολόγοις, ὅτι τό γε ὂν τοῦτ' ἔστιν, ὅσον αἰσθητόν ἐστι, καὶ περιείληφεν ὁ καλούμενος οὐρανός. Τὰς δ' αἰτίας καὶ τὰς ἀρχὰς, ὥσπερ εἴπομεν, ἱκανὰς (ὡς λέγουσι) καὶ ἐπαναβῆναι, καὶ ἐπὶ τὰ ἀνωτέρω τῶν ὄντων, καὶ μᾶλλον ἢ τοῖς περὶ φύσεως λόγοις ἁρμοττούσας.—Metaph. lib. i. cap. 7, which self-creations one of his commentators treats in these contemptuous words: Novis suis inventis, tanquam simiæ suis catulis, delectantur.—Joan. Ludov. Havenrut.

and unerring guide, their faculties were able to find out and comprehend universal truth[13].

The inductive logic has indeed much humbler pretensions, but more efficient operations, stooping from the high presumption of the mind thus raised upon the wings of an imaginary perfection, to the manual and ocular examination of the meanest particulars in the universe, for the ground of its proceedings. So far from having advanced to a state of perfection, it was in their day in its tenderest infancy, and from the obstacles thrown in its way by the syllogistic logic, it remains at the present in a state of slow progression. In the field of natural philo-

[13] Utcunque enim homines sibi placeant et in admirationem mentis humanæ ac fere adorationem ruant, illud certissimum est; sicut speculum inæquale rerum radios ex figura et sectione propria immutat; ita et mentem, cum à rebus per sensum patitur, in notionibus suis expediendis et comminiscendis, haud optima fide rerum naturæ suam naturam inserere et immiscere.—Bacon. Nov. Org. Præf.

Qui veræ philosophiæ principia legesque rerum sola mentis vi et interna rationis lumine fretum, invenire se posse confidit; hunc oportet vel statuere mundum ex necessitate fuisse, legesque propositas ex eadem necessitate sequi; vel, si per voluntatem Dei constitus sit ordo naturæ, se tamen homuncionem misellum, quid optimum factu sit perspectum habere.—Cotes. Præf. in Newt. Princip.

sophy, it contemplates such a vast extent and variety of ground, as is sufficient to employ the joint and confederate labours of philosophers of every age and country, assisted by the largest collection and best arrangement of natural history[14], which is the proper and legitimate basis of natural philosophy. On this foundation experience takes its slow but steady course. It first lights the candle, and then by that candle shows the way, beginning with regular and well-conducted experiments, not such as are vague and preposterous, from which it derives axioms, and finally from axioms well

[14] Phænomena universi, hoc est, omnigena experientia, atque historia naturalis, ejus generis, quæ possit esse ad condendam philosophiam fundamentalis. Neque enim excellens aliqua demonstrandi via, sive naturam interpretandi forma, ut mentem ab errore et lapsu defendere ac sustinere, ita ei materiam ad sciendum præbere et subministrare, possit. Verum iis, quibus non conjicere et hariolari, sed invenire et scire propositum est; quique non simiolas et fabulas mundorum comminisci, sed hujus ipsius veri mundi naturam introspicere et velut dissecare in animo habent, omnia a rebus ipsis petenda sunt. Neque huic labori et inquisitioni ac mundanæ perambulationi, ulla ingenii aut meditationis aut argumentationis substitutio, aut compensatio sufficere potest; non si omnia omnium ingenia coierint. —Bacon. Nov. Org. Præf.

established, it descends to new experiments[15].

The more numerous and extensive are the experiments and observations, from which inductive reasoning draws the general conclusion, the more certain will be the axiom, as standing upon a wider and firmer basis; but however numerous and extensive, they must of necessity fall short of the number and extent of nature, which in some cases by its immensity will defeat all possibility of their co-extension, and in others, by its distance lie out of the reach of their immediate application. In order therefore to make his law of general use, and stretch it over the whole extent of nature, the philosopher is obliged to have recourse to analogy; by which he can lengthen out his inductions, which are properly confined to the number of experiments and observations actually made, to all other particulars of the same kind,

[15] Verus experientiæ ordo primo lumen accendit, deinde per lumen iter demonstrat, incipiendo ab experientia ordinata et digesta, et minime præpostera et erratica, atque ex ea educendo axiomata; atque et axiomatis constitutis experimenta nova.—Bacon. Nov. Org. lib. i. Aph. 82.

concluding the axiom to hold good of all[16], and that, not only for the present, but also for the future, till it either be further confirmed and rectified, or contradicted by better experiments and a more extensive and complete induction[17].

Such is that just and philosophic method of reasoning which sound logic prescribes in this, as well as in other parts of learning, by which, through the slow but certain road of experiment and observation, the mind ascends from appearances to qualities, from effects to

[16] Regulæ philosophandi.

Reg. 2. Effectuum naturalium ejusdem generis eædem assignandæ sunt causæ, quatenus fieri potest.

Reg. 3. Qualitates corporum quæ intendi et remitti nequeunt quæque omnibus corporibus competunt in quibus experimenta instituere licet, pro qualitatibus corporum universorum habendæ sunt.

Nam qualitates corporum non nisi per experimenta innotescunt; ideoque generalia statuendæ sunt quotquot cum experimentis generaliter quadrant.—Non à naturæ analogia recedendum est, cum ea simplex esse soleat et sibi semper consona.—Et hoc est fundamentum philosophiæ totius.

[17] Reg. 4. In philosophia experimentali propositiones ex phænomenis per inductionem collectæ, non obstantibus contrariis hypothesibus, pro veris aut accurate, aut quam proxime haberi debent, donec alia occurrerint phænomena per quæ aut accuratiores reddentur, aut exceptionibus obnoxiæ.—Newton. Princip. lib. iii.

causes, whence by a fair induction from many particular subjects extended by analogy, it forms general propositions concerning the powers and properties of physical body.

When the secondary principles, which constitute the laws of physics, are thus inductively and analogically established, the proper use of syllogism in subjects of natural philosophy is very simple and confined within a narrow circuit. This is only to reduce the particular phenomena which occur under the general propositions, for the truth of which they will account by communicating their own, and present us at once with new and useful discoveries[18]. All this is indeed properly and effectually done by a mere superinduction of the principle, or by the application of the general law to the particular instances to which it belongs; and

[18] Axiomata recte inventa tota agmina operum secum trahunt; atque opera non sparsim sed confestim exhibent.—Bacon. De Augm. Scient. This Sir Isaac Newton calls the synthetic method. "The synthesis consists in assuming the general causes discovered, and established by analysis, as principle, and by them explaining the phenomena proceeding from them and proving the explanations."—Newton, sub fin. Optic.

that, without the formality of a single syllogism, which, in the opinion of the father of philosophers, is not only useless, but injurious in subjects of philosophic investigation[19].

After the general principles and propositions are thus constructed, men who are born with definitions in their mouths, and bred up in the formalities of mode and figure, may indeed entertain themselves and others by playing at sophisms and syllogisms, as children do at hide and seek; but as from this play, we do not expect much useful work, so from the former, we must despair of receiving either additional principles or new discoveries. This idle game has been uselessly played for many ages[20]. The

[19] Nos demonstrationem per syllogismum rejicimus, quod confusius agat et naturam emittit e manibus. Tametsi enim nemini dubium esse possit, quin, quæ in medio termino conveniunt, ea et inter se conveniant (quod est mathematicæ cujusdam certitudinis): nihilominus hoc subest fraudis, quod syllogismus ex propositionibus constet, propositiones ex verbis, verba autem notionem tesseræ et signa sint. Itaque, si notiones ipsæ mentis (quæ verborum quasi anima sunt et totius hujusmodi structuræ ac fabricæ basis) male ac temere a rebus abstractæ et vagæ, nec satis definitæ et circumscriptæ, denique multis modis vitiosæ fuerint, omnia ruunt.—Bacon. Nov. Org. Præf.

[20] Si quis in omnem illam librorum varietatem, qua artes et scientiæ exultant, diligentius introspiciat, ubique inve-

master of the Lycæum syllogized before them to little purpose, besides that of promoting perpetual disputation[21], and of checking all useful and experimental inquiry, arrogating an implicit obedience to a false philosophy by a species of tyranny unexampled in the annals of mankind. And, if it would not spoil their diversion by shocking their devotion to the logic of that gratuitous and hypothetical reasoner, I would venture to lay before them what a true philosopher and logician thought of their employment. "Let men know this as a certain truth, that all subtlety of disputation and discourse of reason, if it be only applied after axioms are invented, is too late and indeed preposterous; and that the true and proper time for subtlety, or at least the principal time,

niet ejusdem rei repetitiones infinitas, tractandi modis diversas, inventione præoccupatas; ut omnia primo intuitu numerosa, facto examine, pauca reperiantur.—Nov. Org. Præf.

[21] Et de utilitate aperte dicendum est; sapientiam istam, quam a Græcis potissimum hausimus, pueritiam quandam scientiæ videri, atque habere quod proprium est puerorum; ut ad garriendum prompta, ad generandum invalida et immatura sit. Controversiarum enim ferax, operum effœta est. —Ibid.

is that which is employed in making experiments, and subsequently in forming axioms. For the other subtlety only mocks and catches at nature, but can never seize or lay hold of her[22]." When they dispute however from principles, which are better founded than the dreams and hypotheses of Aristotle, logicians would do well to recollect, that in physical syllogisms the minor propositions are not general but particular; a circumstance which, philosophically weighed, might put a short period to their disputations, however tenacious men attached to forms and disciplines may be of their ancient privileges, and however willing to wrest every thing to them and them to every thing, and thus to consider their use and application as universal.

But though the common syllogistic logic

[22] Hoc vero sciant homines pro certo, omnem subtilitatem disputationum et discursuum mentis, si adhibeatur tantum post axiomata inventa, seram esse et præposteram; et subtilitatis tempus verum ac proprium, aut saltem præcipuum, versari in pensitanda experientia, et inde constituendis axiomatibus. Nam illa altera subtilitas naturam prensat et captat, sed nunquam apprehendit aut capit.—Nov. Org. lib. i. Aph. 121.

can lend no useful aid to physical science, either in its advancement or communication, as there is perhaps nothing in nature without rule and measure, the mathesis is its most useful friend and handmaid.

The subjects of pure mathematics are the ideal forms of quantity separated from body by an act of mind. The subject of physics are the qualities, that is, the motions and affections of things as they exist in body, and produce by that existence various phenomena and effects. To account for these phenomena and effects as a science, by reducing them under the general laws of nature, physics derives its general forms from experiments by induction, and from them erects philosophical axioms. It is in the application of the forms of quantity to the forms of quality, wherever they are capable of accurate mensuration, that the mathematics so advantageously apply to the elucidation and promotion of physical science. In all these cases they are of most essential use, both in the act of deriving the general laws and principles of physics from experiments and phenomena; and also after they are established, they are equally useful

in calculating their particular operations and effects, which are the other phenomena, and by adapting them, with the utmost address and ingenuity to the use, as well as elegance of civil, social, and domestic life. So indispensable indeed are the mathematics, as instruments to the success of our advancement in physical knowledge, that in their operations throughout the extended field of natural philosophy, they are usually denominated *mixed* mathematics.

Motion is a general form of great influence and extent in the wonderful mechanism and economy of nature, to which the forms of number and figure apply, as an affection of various subjects, and capable of various mensuration. They begin with the moving power, considered as a second cause (for with the first eternal cause natural philosophy has no direct concern); or if the physical cause cannot be properly ascertained from experiment and observation, which too often happens, they take a general phenomenon[23]

[23] Naturæ vires legesque virium simpliciores ex selectis quibusdam phænomenis per analysin deducunt, ex quibus deinde per synthesin reliquorum constitutionem tradunt.—Cotes. Præf. in Newton. Princip.

established on their authority, which by analogy may sufficiently supply its place. Upon this experimental or analogic foundation, they calculate the force or the quantity of motion produced[24]; they account for the different kinds of that motion; they show how they are mixed and compounded, what direction and velocity they will consequently possess, and they demonstrate the times and periods in which they are respectively performed.

From this application of geometry and numbers to the motion of bodies on the surface of the earth, we derive the philosophy of mechanics. By their application to the motion of the heavenly bodies, we rise to the philosophy of astronomy. By their application to the motion of various sounds, we are indebted for the fundamental part of the philosophy of music[25]: all which useful and

[24] Mechanica rationalis erit scientia motuum quæ ex viribus quibuscumque resultant, et virium quæ ad motus quoscunque requiruntur, accurate proposita, et demonstrata. —Newton. Præf. in Princip.

[25] Τὰ ὀπτικὰ πρὸς γεωμετρίαν, καὶ τὰ μηχανικὰ πρὸς στερεομετρίαν, καὶ τὰ ἁρμονικὰ πρὸς ἀριθμητικὴν, καὶ τὰ φαινόμενα πρὸς ἀστρολογικήν.—Aristot. Analyt. Post. lib. i. cap. 13.

liberal departments of learning, with some others, so far as the forms of quantity are concerned, may be allowed to partake of the nature and precision of mathematical science[26].

Thus we see with what advantage these two kindred sciences, of which both are originally derived from body, can meet together in a kind of connubial union[27], and produce a philosophy which constitutes the

[26] Mixta habet pro subjecto axiomata et portiones physicas: quantitatem autem considerat, quatenus est ad ea elucidanda, et demonstranda, et actuanda, auxiliaris. Multæ siquidem naturæ partes, nec satis subtiliter comprehendi, nec satis perspicue demonstrari, nec satis dextere et certo ad usum accommodari possint, sine ope et interventu mathematicæ. Cujus generis sunt perspectiva, musica, astronomia, cosgmographia, architectura, machinaria et nonnullæ aliæ.—Bacon. de Augm. Scient. lib. iii. cap. 6.

[27] Δηλοῖ δὲ καὶ τὰ φυσικώτερα τῶν μαθηματικῶν, οἷον ὀπτικὴ, καὶ ἁρμονικὴ, καὶ ἀστρολογία· ἀνάπαλιν γὰρ τρόπον τινὰ ἔχουσι τῇ γεωμετρίᾳ· ἀλλὰ ἡ μὲν γεωμετρία περὶ γραμμῆς φυσικῆς σκοπεῖ· ἀλλ' οὐχ ᾗ φυσική· ἡ δὲ ὀπτικὴ, μαθηματικὴν μὴν γραμμὴν, ἀλλ' οὐχ ᾗ μαθηματική, ἀλλ' ᾗ φυσική. Ἐπειδὴ δὲ ἡ φύσις διχῶς, τὸ, τε εἶδος καὶ ἡ ὕλη, ὡς ἂν εἰ περὶ σιμότητος τί ἐστι σκοποῖμεν, ὥτω θεωρητέον. ὥστ' οὔτ' ἄνευ ὕλης τὰ τοιαῦτα, οὔτε κατὰ τὴν ὕλην. Καὶ γὰρ δὴ καὶ περὶ τούτου διχῶς ἀπορήσειεν ἄν τις, ἐπεὶ δύο αἱ φύσεις, περὶ ποτέρας τῶ φυσικοῦ, ἢ περὶ τῶ ἐξ ἀμφοῖν· ἀλλ' εἰ περὶ τῶ ἐξ ἀμφοῖν, καὶ περὶ ἑκατέρας. Πότερον οὖν τῆς αὐτῆς, ἢ ἄλλης, ἑκατέραν γνωρίζειν;—Aristot. Auscult. Natural. lib. ii. cap. 2.

richest and brightest gem in the crown of human learning.

This friendly mixture and alliance of physics and mathematics, from which so much honour and advantage have accrued to the cause of physical truth, is an act of fine philosophy; which whether it was speculatively understood by the great Newton, whose labours founded on that connexion produced so many splendid discoveries, is well explained by Aristotle[28], whose physics are little better than a heap of vain hypotheses—an illustrious proof that science is never to be raised from its foundation to perfection by the exertions of a single genius, however powerful and extensive; but must advance, through several stages of improvement, on the labours of many. It furnishes also a pointed admonition to every later philosopher, to avail himself of the discoveries of his predecessors.

It is however a truth to be acknowledged and lamented, that the genius of one philo-

[28] Nat. Auscult. lib. ii. cap. 2.

sopher being either insensibly warped or voluntarily enslaved by the authority of another, is a circumstance which has often thwarted the advancement of knowledge, and always proved an insurmountable obstacle to the progress and success of learning. It is one of the most difficult and important tasks under which every improver of science has to labour, however independent in his spirit and ingenuous in his views, to know what of the works of his predecessors to adopt, and what to reject. This is a question of the highest importance, but which is of most critical and important determination; in which judgment is often embarrassed, and genius perplexed, and in which memory and prejudice too often usurp their place. As Newton put in execution the precepts and followed the directions of the organum of an abler logician, we may have cause to rejoice upon the whole, that our great English philosopher was not more conversant with the works of the Peripatetic.

It was neither from the principles or reasoning, from the logic or practice of Aris-

totle (which seldom if ever coincided in effect), that Newton astonished the world with such a brilliant train of astronomical discoveries and calculations. These, in addition to the other philosophical inventions and improvements of that extraordinary genius, whilst they reflect the highest honour on the country which gave him birth and education, have immortalized his name and memory. The logic which directed his physical researches pointed out to him a more humble and laborious, but a more honourable and successful road to truth. From the ingenious fictions and plausible inventions of the Stagirite, and from the formal but feeble disputations of his weaker followers, it brought him down to the labour of experiment and actual observation. Instead of the wilds of imagination, it led him to cultivate the field of nature; from mental speculation it drew down his attention to manual operations.

By experiments, ingeniously made and accurately observed, he took the true phenomena of motion as generated by the powers of gravity, elasticity, the resistance of fluids,

and the like; and analyzed the forces by which it is produced, and of which it is compounded[29]. To these forces he applied his sublime geometry, which science he advanced far beyond the reach of all former mathematicians, and by this he demonstrated the phenomena of all the curves described, and motions performed by projectiles in every hypothesis that could be framed.

From the astronomical observations of Copernicus and the rules and conjectures of Kepler, two of the ablest astronomers before him, he found the planets revolving round their respective centres in curves and motions exactly similar or the same; and by a bold and sublime analogy[30], which made him the

[29] All improvement in learning is progressive, and philosophers are never dishonoured by availing themselves of the inventions of their predecessors or contemporaries. Galileo observed the velocity of falling bodies to increase in the duplicate ratio of the time; and that projectiles move in a parabola: and Sir Christopher Wren found the equability of motion by experiments on pendulums. See the Scholium at the end of the sixth Corollary of Newton's Principia.

[30] Non a naturæ analogia recedendum est, cum ea simplex esse soleat, et sibi consona,—et hoc est fundamentum philosophiæ totius.—Newton. Reg. Philosoph. lib. iii. Princip.

Conclusiones precedentes huic innituntur axiomati "effec-

first astronomer in the world, from his theory of projectiles, experimentally founded and geometrically confirmed, he extended his philosophy to the celestial bodies[31], applying to

tuum scilicet ejusdem generis, quorum nempe quæ cognoscuntur proprietates eædem sunt, easdem esse causas et easdem esse proprietates quæ nondum cognoscuntur," &c. —In hac regula fundatur omnis philosophia, quippe, qua sublata, nihil affirmare possemus de universis.—Cotes. Præf. in Newton. Princip.

[31] Eadem ratione qua projectile vi gravitatis in orbem flecti posset et terram totam circumire, potest et luna vel vi gravitatis, si modo gravis sit, vel alia quacunque vi qua in terram urgeatur, retrahi semper a cursu rectilineo terram versus et in orbem suum flecti: et absque tali vi luna in orbe suo retineri non potest. Hæc vis, si justo minor esset, non satis flecteret lunam a cursu rectilineo: si justo major, plus satis flecteret, ac de orbe terram versus deduceret. Requiritur quippe ut sit justæ magnitudinis: et mathematicorum est invenire vim, qua corpus in dato quovis orbe data cum velocitate accurate retineri possit; et vicissim invenire viam curvilineam, in quam corpus e dato quovis loco dato cum velocitate egressum data vi flectatur.—Newton. Princip. Mathem. Def. v.

Without detracting from the merit of Sir Isaac Newton as an astronomer, which is so great that nothing can diminish it, truth and justice require it should be acknowledged, that the application of projectile to celestial motion, which he improved to such wonderful and important purposes, was made by one before him.

" Certissimum hoc est et ab omnibus concessum, motum planetarum verum nec esse perfecte circularem, neque perfecte æqualem. Testantur enim observationes, idque ultra omnem disputationem, figuram orbitæ planetariæ esse ellipticam sive ovalem, et a circulo deficientem; motumque ejus in hoc elliptico inæqualem esse, et pro distantia sua a

them the same forces and mathematical calculations, for the phenomena of which

sole intendi ac remitti.—Ultro se offerunt causæ physicæ et naturales, quæ talem motum necessitate geometrica describunt.—Per causas physicas veritati satisfaciamus; ut enim planeta legibus magneticis moveatur, quid quæso impedit, cum idem in aliis exemplis aperte videamus?—Projiciatur plumbum aliquod in altum, surgit primo velociter, deinde tardius, dum tandem stationarium in terram recidat continuo velocitatis incremento, atque ita motum librationis describit. —Oritur ea libratio in linea recta ex pugna virtutis illius quam manus tua illi infudit, una cum virtute telluris magnetica, qua omnia gravia ad se attrahit, ut magnes ferrum. Nihil hic opus est, ut circulos nescio quos in ære somniemus, ubi causam naturalem ante oculos habemus. Et quæso quid est quod in motu planetarum, ubi eadem commoditas non deest, causam veram a natura ipsa tot exemplis confirmatum, fictitio circulorum somnio commutaremus."—Jeremiæ Horroccii Liverpoliensis Opera Posthuma, Disp. vi. cap. 1.

When we compare this extract with those above, and indeed with the whole plan of his Principia, we cannot help concluding that Sir Isaac Newton made these broad and pointed hints of Mr. Horrox the basis of his astronomy. He acknowledges this philosopher, who died about the year that he was born, to have been the first who discovered the moon's motion to be in an ellipse about the earth, with its centre in the lower focus; and that this invention was improved by Halley, who placed the centre of the ellipse in an epicycle with its centre revolving uniformly about the earth, from whence the inequality in the progress and regress of the apogee, and in the quantity of eccentricity is deduced. (See Princip. lib. iii. prop. 35 Schol.) The philosophical tract alluded to by Sir Isaac is entitled Nova Theorea Lunæ, published after the author's death by Dr. Wallis; and in the same publication is that other tract De Motu Siderum, from which the extract above is taken, and which our great

they most exactly and wonderfully accounted.

astronomer must undoubtedly have seen, as he was particularly conversant with every thing that came from or through the hands of Dr. Wallis.

This philosopher was the first who, in 1639, after detecting the fallacies of the Lansbergian tables and correcting them, by the use of Kepler's, which he improved, calculated and took the observation of that rare and decisive phenomenon, the transit of Venus, in which Kepler had failed. This important observation, by which the sun's parallax and distance from the earth are more justly ascertained, he published in a work entitled De Venere in Sole Visa, a few weeks before his death; and he had a much greater work in hand, in which he had made considerable progress. The subject of this was, in the first part, to refute the hypothesis of Lansberg, by which he had been misled; which is the work collected and published by Dr. Wallis: and the second part was still more important, intending to found a new philosophy upon the basis of sound experiment and accurate observation, in which he adopted the Keplerian hypothesis corrected and improved. But though he had made such advances in this new philosophy, as from it to calculate and construct an ephemeris, he had not so adjusted his materials and committed them to paper, that they could be collected and arranged for publication. An idea of his general scope may however be collected from what is incidentally said in the tract De Motu Siderum, inserted in the publication mentioned above. "Causa vera est physica, sol nempe conversione sui corporis reliquos planetas legibus magneticis secum rapit in gyrum, non aliter quam terra lunam, nubes, et reliqua in altum projecta, magnetica hac virtute secum circumvehit, ut doctissime probat Keplerus. Causam autem excentricitatis male (ut mihi videtur) tradit. Illam ego fibris magneticis quas ille in corpore planetarum fingit tribuendam non censeo, sed inertiæ eorum corporali, qua locum suum tueri conantur adversus fortiorem solis

By this theory founded and established in projectile motion, and thence by a vast ex-

virtutem. Philosophiam hanc alio tempore fusius exponam, ejusque ope sperare ausim, ipsum creationis momentum ex motibus cœlestibus (saltem probabilissime) demonstrare. In presens hoc ago, ut studiosiorum animos a vanis illis et fictitiis circulorum somniis, ad naturalem et physicam magis causarum disquisitionem revocarem.—Exempla multa dari possunt eorum quæ per leges naturales et magneticas in circuitum rapiuntur.—Videmus terram magnetica sua vi nubes et reliqua sursum projecta abripere in gyrum.—Docet igitur hic nos experientia figuram circularem per leges magneticas generari posse, cur illud de stellis dubitemus, quod in aliis verum cernimus?—Ostendimus nos philosophiæ nostræ familiare exemplum.—Philosophiam nostram ab ipsa natura ultro oblatam nos grati accepimus: frustra illi ad causas fictitias, et pro lubitu commentas confugiunt."

That every philosopher has an absolute right to avail himself of the labours and discoveries of his predecessors, as a legacy freely given him, is a privilege which philosophy always claims. It is however a tribute justly due to the memory of this extraordinary genius, whilst we regret the loss of his more valuable works, to acknowledge from what has been saved, that he was principally instrumental in calling philosophy out of the regions of fictitious invention, and putting her on the investigation of the physical causes of things from experiments and observations; that he not only made the application of projectile motion to the analogical illustration of celestial, but also assigned the forces both projective and attractive on which all geometrical calculations are founded; and that, without injuring the immortal fame of his great successor, he may be fairly considered as the forerunner of Newton. He mentions the vis inertiæ of matter in totidem verbis; and as to the attractive force, whether it be that of magnetism or gravitation, is immaterial; and indeed Sir Isaac himself, in the beginning of his Principia, is quite indifferent both as to its name and

ertion of mind translated to celestial, he confirmed the observations of these philosophers; demonstrated their hypotheses and conjectures[32]; and enacted on a sound

nature: (vel vi gravitatis, si modo gravis sit luna, vel alia quacunque vi, quâ in terram urgeatur).

That all bodies in reference to the earth as their centre, and all bodies in reference to the sun as their centre and moving in a sphere, are acted upon and varied in their motions and spheres, according to their respective distance, by some physical cause or causes from which their phenomena could be geometrically demonstrated, was the general doctrine of Horrox. Halley, observing the surfaces of the planetary spheres to be as the squares of their radii, found the force at several distances to act reciprocally as the squares. And Newton demonstrated, that a planet must revolve in an ellipsis about the centre of force in the lower focus acting reciprocally as the square of the distance, and that with a radius drawn to that centre, it must describe areas proportionable to the times; particularizing and completing the mathematical calculation, and carrying it through all the celestial phenomena. All which might probably have been done by Horrox, had he lived to execute his work; but this admirable young man of illustrious genius though humble birth died in the year 1641, at the age of twenty-three!

[32] It is Kepler's first rule, "That the same planets describe equal areas in equal times;" and Sir Isaac Newton demonstrated from thence, "that the planets are attracted towards the sun as their centre." Kepler's second rule is, "That the squares of the periodical times are as the cubes of the transverse axis of their orbits;" and Sir Isaac demonstrated "that the force is reciprocally as the squares of the distance;" from which duplicate ratio he demonstrated the rule. It is Kepler's third rule, "That the orbits of the planets are oval and probably elliptical, having the sun in the

foundation the laws of the whole planetary system, which, on finding their truth confirmed by repeated facts and continued experience, he called the mathematical principles of astronomy[33].

From these principles or general laws of motion, by the same geometrical calculations, he deduced the stupendous theory of the elliptical orbits of the planets both primary and secondary, of the spaces through which they pass, of the different velocity with which they move, both in respect of each other and of themselves in the different stages of their ethereal journey, of their relative times and respective situations; and crowned this amazing system of the heavens, by his new philosophy of the motion of the comets, the moon and the tides.

For the mathematical foundation of his astronomy, as the effects and motions were the same or similar, he assigned the same or

focus;" and Sir Isaac demonstrated "that the orbits are really elliptical, and that the sun is in the lower focus."

[33] Principia tradidi a mathematicis recepta et experientia multiplici confirmata.—Newton. Præf. in Princip.

similar forces existing in nature, as the efficient causes both of mechanical and celestial motion[34]. And truly whether in the act of deriving his principles from the projectile phenomena, or subsequently for the purpose of applying them to the planetary, it was necessary to analyze the elliptical motion of the heavenly bodies into a compound of two simple motions in right lines[35] produced by

[34] See his Regulæ Philosophandi prefixed to the third book of the Principia.

Having founded his astronomy on the analogy between the phenomena of projectile and planetary motion, from the phenomena he pushed the analogy to the forces as the efficient causes of both. "Despiciamus," says Mr. Cotes in his preface, "qualis sit in terrestribus natura gravitatis, ut deinde tutius progrediamur ubi ad corpora cœlestia longissime a sedibus nostris remota perventum fuerit;" which is more fully explained in the following words: "Videamus jam comparatione instituta inter planetarum vires centripetas et vim gravitatis, annon ejusdem forte sint generis. Ejusdem vero generis erunt, si deprehendantur hinc et inde leges eædem, eædemque affectiones."

[35] The projective impulse given to a stone being the cause of its ascent in the air, and its own weight that of its descent to the earth, he adopted projection and gravitation or the centrifugal and centripetal forces, in their compound operation both on the projectile and planet, as the causes of their similar motions: and these forces he made the mechanical foundation of his Principia. "Mechanica rationalis erit scientia motuum qui a viribus quibuscunque resultant, accurate proposita ac demonstrata." And, after his Principia were formed, these and similar forces are the subjects upon

the action of these different forces. This might also be useful for the purposes of teaching and demonstration; just as we find it necessary, in all parts of science, to separate what in nature is inseparable, for the convenience and assistance of the understanding. The planetary motions may however be simple and uncompounded, as they most probably are (since no experiments can be tried in these distant regions); and the astronomy of Newton, which is only the application of his mathematical principles to

which they were to operate in the demonstration of other phenomena. "Nos ea tractamus quæ ad gravitatem, levitatem, vim elasticam, resistentiam fluidorum et ejusmodi vires, seu attractivas seu propulsivas, spectant; et ea propter hæc nostra tanquam philosophiæ principia mathematica proposuimus. Omnis enim philosophiæ difficultas in eo versari videtur, ut a phænomenis motuum investigemus vires naturæ, deinde ab his viribus demonstremus phænomena reliqua." This is professedly the design and conduct of his great astronomical work. "Et huc spectant propositiones generales quas libro primo et secundo pertractavimus. In libro autem tertio exemplum hujus rei proposuimus per explicationem systematis mundani. Ibi enim ex phænomenis cœlestibus, per propositiones in libris prioribus mathematice demonstratas, derivantur vires gravitatis quibus corpora ad solem et planetas singulas tendunt: deinde ex his viribus, per propositiones etiam mathematicas deducuntur motus planetarum, cometarum, lunæ, et maris."—Newton. Præf. in Princip.

their mensuration from their analogy to projectile motions, did not at all require that the forces of projection and gravitation, however useful their supposition, should be assigned as their real existent causes[36]. It is sufficient for the analogy, on

[36] Sir Isaac Newton was doubtless the first astronomer in the world; and his great merit consists in the application of geometry to the phenomena of motion, which he resolved into two general powers or causes, for the purpose of applying his mathematical calculations with effect to discover the principles of motion in general, and by them to demonstrate the phenomena of the solar system—a stupendous exertion of the human mind. But men who have gone far, have sometimes in the laudable zeal for knowledge and the perfection of their science, been carried beyond the bounds of truth in attempting to go farther. It was sufficient for the purpose of astronomy (which differs from physics properly understood, inasmuch as it consists in the calculation of effects, whatever the causes may be) to suppose the existence of the forces assigned; for whether a combination of the two forces be the real cause of the celestial motions, does not at all affect the truth and utility of the calculations founded upon them, which would demonstrate the phenomena equally as well upon the hypothesis, and be equally convincing when confirmed by experience, which would crown the science.

Thus a geometrician can work with imaginary forces, as well as with real ones; and, as an astronomer, in calculating the celestial motions, he had nothing to do with investigating the celestial cause; for he himself declares that his principles are mathematical, not physical (p. 356). And Dr. Berkeley has well observed, that "what is said of forces, whether attracting or repelling, is to be regarded only as a mathe-

which the whole philosophy is founded, that the phenomena of motion are known, from experiments and observations, to be the same in both instances; that the principles or general laws, mathematically established from the forces of the one, are transferred to

matical hypothesis, and not any thing existing in nature"—(Siris). Though Sir Isaac may be totally wrong as to the causes, he may be totally right as to the laws of celestial motion, ascertained by figures and confirmed by facts. To ascertain the laws was the end of his philosophy.

To the same phenomena as effects, his philosophy attributes the same existent causes, by an axiom founded more on the authority of antiquity, than on the truth of things. To investigate and assign the true causes of things, is a much more hazardous task than philosophers are willing to allow. Because the curve described by a planet is of the same species, and the motion similar to those of a projectile, to infer that therefore the cause is actually the same, is a conclusion more than the analogy, on which his astronomy is founded, either requires or warrants: for the curves of both are the same with that produced by the simple act of cutting a piece of wood of a certain shape in a certain direction, but it cannot be therefore concluded that the causes are the same.

That the First Cause of all motion, projectile or astronomical, incessantly acting in his providential care according to general laws, is one and the same, is most true. But whether he may not move the grander wheels of his material system by a more immediate act of his omnipotent mind, whilst he produces the same apparent effects or similar motions on this earth, by the operation of second causes; or, whether he does not produce the heavenly motions by second causes either different in themselves, or compounded

the phenomena of the other; and that the proofs and operations deduced from these principles, in the latter case, are confirmed by facts and experience, the first and final test of truth. It is enough for his immortal honour, that his astronomy, thus founded on mechanics, has anticipated and predicted all the stupendous revolutions of the heavens; that it has surmounted innumerable difficulties, and demonstrated what was before beyond the reach of human observation, and has erected on a mathematical foundation all those celestial facts and observations into a system at once sublime and luminous.

differently, from those which act upon projectiles, as no experiments can be instituted in these distant regions, are points worthy the consideration of a philosopher.

But there are many motions upon the earth different from that of projectiles, which may probably lay the foundation of an analogy to the celestial motions; as that of fire, which is directly opposite to gravitation. We have heard of a foreigner [Boscovich] projecting an astronomy on the principle of repulsion: and our own countryman, the ingenious Mr. Jones, has assigned a principle of planetary motion grounded on experiment, totally different from the Newtonian forces; and which, if the actual causes are to be given, is much more simple, and in many respects less objectionable. (See his Essay on the Principles of Natural Philosophy.)

Had this great and good man been content to rest his astronomy on the basis of this analogy confirmed by repeated facts and uniform experience[37]; and left the causes of the celestial motion to Him, many of whose ways are above all human investigation, his philosophy would have maintained the same dignity and value, equally useful to all the purposes of civil and social life, and equally acceptable to the contemplative student; without being involved in those absurdities and encumbered with those difficulties which even the genius of a Newton was unable to surmount[38], and which his followers have

[37] The analogy on which astronomy is founded concerns properly the phenomena and apparent effects, and need not, perhaps cannot, ever extend to the real causes. Dr. Clarke, the learned advocate and defender of Newton, in his contest with Leibnitz, after many a struggle, was obliged to bring the matter at last to this issue; where he says, that "attraction is not a cause, but a phenomenon or effect discovered by experience, whatever be the cause of it, to which mathematical calculations are usefully applied."—P. 355 and 356.

[38] To establish his projection or centrifugal force, according to his first axiom, he was obliged to invent a perfect vacuum; but then, for his gravitation or centripetal force a vacuum would not do; and he was brought to great difficulties, [see his Letter to Dr. Bentley], and at last, to the

laboured in vain to evade or palliate[39]; without being so liable to be abused and

necessity of conjecturing a subtle ethereal fluid, as a medium, to pervade the universe [see Opt. Quæst. 18, 19, 20, 21]: "And thus," says Mr. Jones, "he solved the government of the created world by a nostrum which hath never yet been understood."

[39] In justice to the Newtonian Philosophy, I cannot avoid transcribing the Apology, made in the Recension of the Controversy with Leibnitz, from its last and ablest edition, as it contains the substance of the defence adopted by the followers of Newton:

Philosophia porro, quam in Principiis suis atque Opticis Newtonus excoluit, est experimentalis: illa scilicet, quæ causas rerum non fidentius docet, quam per experimenta confirmari queant; neque implenda est opinationibus, quæ per phænomena nequeunt probari. Et idcirco in Opticis suis, res experimentis firmatas ab illis, quæ incertæ adhuc manent, distinxit Newtonus; et incerta aliquot ejusmodi, sub finem Opticorum, ut quærenda proposuit. Eandemque ob causam, in Principiorum præfatione cum memorasset motus planetarum, cometarum, lunæ ac maris, ceu in libro illo de gravitatis theoria deductos, hæc addidit: "Utinam cætera naturæ phænomena ex principiis mechanicis, eodem argumentandi genere, derivare liceret. Nam multa me movent, ut nonnihil suspicer, ea omnia ex viribus quibusdam pendere posse, quibus corporum particulæ, per causas nondum cognitas, vel in se mutuo impelluntur, et secundum regulares figuras cohærent, vel ab invicem fugantur, et recedunt: quibus viribus ignotis, philosophi hactenus naturam frustra tentarunt." Et sub finem ejus libri, in secunda editione narrat, ut, præ inopia experimentorum tanto negotio sufficientium, non aggressus sit leges actionum illius spiritus, sive agentis, describere, per quem efficitur hæc attractio. Quin et eandem ob causam de gravitatis causa nihil pronunciat; quod nulla experimenta, sive phænomena, ad manum

perverted, by the artful and evil inventions of the human mind, to oblique and sinister

essent, quæ causam illam certo indicare possent. Atque hoc in Principiis suis, sub ipso initio, abunde declaraverat, his verbis: "Virium causas et sedes physicas jam non expendo." Et paulo post, "Voces attractionis, impressus, vel propensionis cujuscunque in centrum, indifferenter, et pro se mutuo promiscue usurpo; has vires, non physice, sed mathematice tantum considerando. Unde caveat lector, ne per hujusmodi voces cogitet me speciem vel modum actionis, causamve aut rationem physicam alicubi definire; vel centris, quæ sunt puncta mathematica, vires vere et physice tribuere; si forte aut centra trahere, aut vires centrorum esse dixero." Et sub finem Optices: "Qua causa efficiente hæ attractiones [sc. gravitas, visque magnetica et electrica] peragantur, hic non inquiro. Quam ego attractionem appello, fieri sane potest, ut ea efficiatur impulsu; vel *alio aliquo modo nobis incognito*. Hanc vocem attractionis ita hic accipi velim, ut in universum solummodo vim aliquam significare intelligatur, qua corpora ad se mutuo tendant; cuicunque demum causæ attribuenda sit illa vis: nam ex phænomenis naturæ illud nos prius edoctos esse oportet, quænam corpora se invicem attrahant, et quænam sint leges et proprietates istius attractionis, quam in id inquirere par sit, quanam efficiente causa peragatur attractio." Pauloque inferius, easdem attractiones tanquam vires considerat, quas in rerum natura existentiam habere, licet causæ earum nondum sint cognitæ, per phænomena constat; distinguitque eas a qualitatibus occultis, quæ a specificis rerum formis fluere existimantur. Et in scholio sub extremum Principiorum, cum gravitatis proprietates memorasset, hæc addidit: "Rationem vero harum gravitatis proprietatum ex phænomenis nondum potui deducere; et hypotheses non fingo. Quicquid enim ex phænomenis non deducitur, hypothesis vocanda est; et hypotheses, seu metaphysicæ, seu physicæ, seu qualitatum occultarum, seu mechanicæ, in

purposes; and without being made objective, however undeservedly, to the principles and

philosophia experimentali locum non habent.—Satis est, quod gravitas revera existat et agat secundum leges a nobis expositas, et ad corporum cœlestium et maris nostri motus omnes sufficiat." Jam vero post hæc omnia, quæ consulto præmonuerat Newtonus, quis non miretur, ideo eum a quoquam sugillari, quod causas gravitatis aliarumque attractionum non per hypotheses explicet? quasi criminis loco esset, certis esse contentum, incerta vero dimittere.—Newtoni Opera Edit. Horsley, vol. iv. p. 492—494.

The cause of Newton is here pleaded with all the candour and ability becoming the very learned and ingenious editor of his works. Of causes in the great chain of nature, there are many kinds subordinate to each other; and, allowing that Sir Isaac never intended to assign the physical cause of his forces; as he made these forces, whatever be their cause, the basis of his astronomy, the question seems to be, whether he considered them existent in the heavens and founded on experiment and phenomena; or whether he only supposed them to be existent, for the purpose of applying his geometrical calculations? If he thought them really existent, he assigned them as the physical causes of the celestial motions, though he did not know their causes. And that he did so is, I think, clear both from himself and from his editor. Mr. Cotes says in his preface, "Constat planetas in orbibus suis retineri per vim aliquam in ipsos, perpetuo agentem, constat vim illam dirigi semper versus orbitarum centra, &c.—Ideone gravitatis occulta causa dicetur, eoque nomine rejicietur a philosophia, quod causa ipsius gravitatis occulta est et nondum inventa.—Etenim causæ continuo nexu procedere solent a compositis ad simpliciora.—Causæ simplissimæ nulla dari potest mechanica explicatio."

Sir Isaac Newton was certainly much perplexed about his forces. They were indispensable to his astronomy either as real or supposed; and if he had rested the whole simply

doctrines of that religion, of which he lived in the belief and practice, and in which he reposed his dying hope[40].

upon the analogy between projectile and celestial motion, according to the few plain words in his fifth Definition, —" Eadem ratione qua projectile vi gravitatis in orbem flecti posset, et totam terram circumire, posset et luna, si modo gravis sit, vel alia quacunque vi,"—without saying any more, he would have saved himself and followers much difficulty and trouble, and have fixed his astronomy upon a foundation sufficiently strong, against which no fair objection could have been brought. And this he might have done without any hypothesis (which he so justly rejects in his Philosophy), for he had found by observation and experiment, that the celestial motions were exactly similar to projectile motions, which was a sufficient foundation for an analogical conclusion.

[40] Upon this part of the Newtonian Philosophy, some materialists have hinged, or endeavoured to hinge, their absurd and preposterous system; and it is a misfortune ever to be lamented, in this dark and imperfect state of things, that the errors of great and good men, however innocent or even laudable in themselves (and this is one of the worst plagues of error), lead weaker and less virtuous minds into a labyrinth of fatal mischief.

And here I feel myself in duty bound, both to the memory of the immortal Newton and to an able philosopher who transmitted this defence in a private letter soon after the first edition of this work, to insert the following remarks of Dr. Reid.—See the Letter in the Appendix to the Memoir.

Two living authors, with a view of subverting this foundation of materialism and all the absurdity and impiety which it generates, have opposed this infirm part of the Philosophy of Newton with arguments, which on both sides are, I think, full and incontrovertible. But, after subverting the forces of attraction and repulsion, in assigning what each supposes to

But whilst from this mixture and connection of physics and mathematics, philosophers

be the true cause of celestial motion, they draw two ways diametrically opposite to each other; which may probably be an omen that the true and proper cause is not to be known.

The author of "Ancient Metaphysics" assigns a metaphysical, Mr. Jones's Philosophy a physical cause; and, equally zealous for the interests of religion, they are both the avowed enemies of atheism. The former attempts to revive and support the ancient doctrine of Mind or the Deity himself, as the first cause, animating and moving every part of his material creation by an immediate influence, and "perpetually operating upon it by incessant impulses." The latter attributes all motion to the action of matter upon matter, maintaining the agency of second causes, under the direction of God the moral governor of the world, and the primary cause of all things.

They perfectly agree in acknowledging God, or the Universal Mind, to be the first and universal cause of all things; so that, upon either supposition, the cause of Theism is safe. But the one represents him in the exercise of his providential government, as acting according to fixed and general laws of his own, and operating through every part of the natural material system mediately and by the instrumentality of his creatures, that is naturally; whilst the other describes him as acting upon all particular material subjects, in different ways, immediately and by the direct operation of his divine power, supernaturally if not miraculously, according to general laws. Which of the two hypotheses redounds more to the honour of God and the interests of his religion, as their supporters appear to be actuated by the purest and most benevolent motives, is a question I would not undertake positively to decide.

I must however observe, so great is the perverseness and

are deriving a train of sublime and splendid truths, by which the heavens are enlightened

obliquity of the human mind, that both, however opposite, have at different periods been abused to the support of atheism. The immediate operation of the Universal Mind animating and actuating all matter with every kind of life and motion, was by the Chaldaic and some old philosophers, perverted into the doctrine of materialism; in consequence of which they taught whole nations to worship the element of fire, as the subtlest and sublimest part of the soul of the world. Under a similar persuasion, a Roman philosopher of great moral reputation has the following question,—"Quid est aliud natura, quam Deus, et divina ratio toti mundo et partibus ejus insita?"—(Seneca de Benef. lib. iv.) Nor need we wonder at this, when we read the following lines in a poet of our own of only the last age:

> "All are but parts of one stupendous whole,
> Whose body nature is, and God the soul."

But not so Newton,—"Deus omnia regit, non ut anima mundi, sed ut universorum Dominus, et propter dominium suum παντοκράτωρ dici solet." On the other hand, some more modern materialists have founded their doctrines on the agency of second causes, on matter acting upon matter, by virtue, as they suppose, of its organization or other inherent power, making the material world into an automaton, moving itself independently of any other cause. And either the reason of men or the reason of things is so totally changed, that to defeat this impious and modern doctrine, the other and ancient is revived as the only antidote, making God himself the sole agent, by whose immediate power, exclusive of the operations and instrumentality of all material agents, the meanest effects are every hour produced. By these weapons we are taught we can alone obtain a complete triumph over atheism. But whether this triumph will be

from pole to pole, they should never in the pride of science lose sight of the nature and

well founded in the event, may be left I think to be decided by the judgment of Lord Bacon, supported by the verdict of Plato.—" Eos, qui autumant nimiam scientiam inclinare mentem in atheismum, ignorantiamque secundarum causarum pietati erga primam obstetricari, libenter compellarem Jobi quæstione: 'An oporteat mentiri pro Deo, et ejus gratia dolum loqui conveniat, ut ipsi gratificemur?' Liquet enim, Deum nihil operari ordinario in natura, nisi per secundas causas, cujus diversum credi si vellent, impostura mera esset, quasi in gratiam Dei, et nihil aliud quam authori veritatis immundam mendacii hostiam immolare. Quin potius certissimum est, atque experientia comprobatum, leves gustus in philosophia movere fortasse ad atheismum, sed pleniores haustus ad religionem reducere. Namque in limine philosophiæ, cum secundæ causæ, tanquam sensibus proximæ, ingerant se menti humanæ, mensque ipsa in illis hæreat atque commoretur, oblivio primæ causæ obrepere possit. Sin quis ulterius pergat, causarumque dependentiam seriem et concatenationem, atque opera providentiæ intueatur, tunc secundum poetarum mythologiam facile credet, summum naturalis catenæ annulum pedi solii Jovis affigi."—De Augm. Scient. lib. i.

Ταύτ' ἂν πάντ' ἐτιν τῶν συναιτιῶν, οἷς ὁ Θεὸς τὴν τῦ ἀρίτου τάξιν κατὰ τὸ δυνατὸν ἀπατελεῖ.—Plato.

Between these two rocks of atheism is the middle way, in which sound theism is always to be found, which was pointed out both by Plato and Bacon, and in which Newton, even if mistaken in his celestial forces securely trod in the exercise of philosophy and religion:

" The main business of natural philosophy is to argue from phenomena without feigning hypotheses, and to deduce causes from effects, till we come to the very First Cause, which certainly is not material."—Newton's Optics, p. 343.

In this middle way, the very learned author of " Ancient

extent of that mixture and connexion. Whilst they join them in operation, they should be

Metaphysics" might rest secure of his theism; and for the improvement of sound learning, he may safely join the ingenious Mr. Jones, in the following sublime and truly philosophical sentiment—"With him who is taught that the true God is distant from, and above the world of matter, though virtually present in it by a providential inspection and superintendence, the mechanism of the natural world will only serve to enlarge his ideas, by setting before him the visible evidence of that divine Wisdom, which with such exquisite contrivance and such simplicity of design, hath adapted physical causes to the production of their respective effects."—Jones's Philosophy, p. 8.

By overlooking the intermediate links in the great chain of causes, and by resolving every effect into the immediate and personal act of Deity, this learned writer should reflect, that he not only injures the beauty and contrivance, the connection and dependence so admirable in the economy of nature, but puts a check upon the progress of natural philosophy, which consists entirely of an inquiry into second causes; and also, that, by introducing a sort of "miraculous interposition, he is confounding the established order of natural things, and introducing a method of philosophizing, which would give a sanction to every ridiculous hypothesis that doth not quite come up to an impossibility."—Jones's Philosophy, p. 116.

In allowing the Deity to act mediately by the instrumentality of his own creation, we can be in no danger of supposing that matter is possessed of thought and motion in itself, or that it is able to make and support the world: and "the wisdom of God will be infinitely magnified" in our conception "if he be found to bring about those things by the mechanism of second causes, to which philosophers have determined the divine power itself to be absolutely necessary. We may hence derive the only rational en-

careful not to confound them in contemplation, so as to mistake the principles of the one for the principles of the other; which will finally and inevitably lead to error.

That every particular science has principles of its own, which are totally independent of others, is that sound and wholesome doctrine received from Aristotle (though neglected in his logic), to exemplify and illustrate which is a main object of these Lectures; as it leads to the due distinction,

courragement to a cheerful and diligent study of nature. The causes employed are few and simple beyond expression; their effects are infinitely various and wonderful; and to those who begin upon a right foundation, they will unfold themselves every day more and more; nor will the labour of man be lost in the pursuit, till he has acquired as much knowledge of this sort as will do him good in his present state."—Jones's Philosophy, p. 225.

Upon the whole, both these authors agree with our great philosopher as to the who, the where, and the when. It is God, in all places, and at all times. But they differ as to the manner how. And though both may have supplanted the Newtonian forces, their hypotheses are opposite to each other, and each may serve to prove that the other is in the wrong. And however honourable the search, if conducted with humility and prudence, the physical causes of things may often be among those of "his ways which are past finding out." Whether he dispense his blessings through the world more immediately with his own hand, or through the mediation of second causes, the real government of the whole will terminate equally in himself. If, "in his

and facilitates the just apprehension of all the kinds of truth. Physical principles, whether general causes if they are to be found, or phenomena, which for philosophical purposes are equivalent to causes, are collected from experiments which are particular matters of fact, and cannot possibly originate in geometry, which consists in the speculation of general ideas; however useful geometry may be in the art of deducing them in the first place, and of applying them afterwards [41].

wisdom he made the worlds," He upholds them by his power. If his sun replenish us with its light, and invigorate us with its heat, it is He "who maketh it to rise on the evil and on the good." If the air yield nourishment and respiration to the vegetable and animal creations, it is He "who giveth life and breath and all things." If the clouds pour down water to fertilize the earth, it is He "who sendeth his rain on the just and on the unjust;" He is both "alpha and omega," the beginning and the end, "in whom we live and move, and have our being."

[41] Young mathematicians, who are smatterers in philosophy, are apt to form very high and preposterous ideas of the nature and perfection of physical science, betrayed probably into a mistake, in regard to its principles, by Sir Isaac Newton having called his Philosophy "Principia *Mathematica*:" and again by the following and similar expressions, "Hactenus principia tradidi a mathematicis recepta, et experientia multiplici confirmata."—Præf. ad Princip. From which it would seem, as if he considered mathematics as the subject matter, and experiments only as the instruments, which is directly contrary to the truth.

It is accordingly observed by a very able and ingenious philosopher, that "geometry can be of little use till data are collected to build upon[42]." These data are furnished by experiments and inductions, and lay the foundation of the philosophical superstructure, which mathematics sometimes lend most useful assistance in building up. If the foundation be well and firmly laid, the superstructure will be sound and strong; if otherwise, it will be infirm and weak: for, however sure and invincible mathematical reasoning may be, either considered in its pure state, or in its operation on true materials; when employed upon false and mistaken principles, it is as false and erroneous as any other that is also misapplied[43].

[42] Maclaurin, p. 35.

[43] Geometriam atque arithmeticam, velut alas duas astronomiæ datas esse, scite quidem ac vere dixit Plato; suumque adjecit calculum Lansbergius. Atqui non solum alas habent volucres quibus in cœlum subvehantur, sed additur præterea cauda, quæ temonis instar, volatus earum regere possit. Simili omnino ratione, quamvis geometria et arithmetica astronomo summopere sint necessariæ, adeo ut illis nequaquam carere possit; per se tamen non sufficiunt ad laborem hunc Herculeum perficiendum, nisi insuper accedat ratio physica, quæ, tanquam Nauclerus puppi insidens, totius speculationis clavum teneat. Si quis igitur Palladem

In their application to portions of natural philosophy, mathematics are therefore not to be considered as fundamental, but as instrumental only: and however mixed in operation, the judicious philosopher will distinguish the physical principles, whatever they may be or wherever found, from the mathematics operating upon them. The motion of bodies on the surface of the earth is the phenomenon, which from experiment supplies the physical principle; and geometry, by applying its mensurations to that motion, erects this part of natural philosophy

hanc, difficilis licet vultus, comitem et ducem nolit; nil mirum si, latentibus alicubi scopulis impingens, in erroris pelago naufragium fecerit. Atque hanc ego rationem existimo, quod tam diu formosissima illa divarum Urania tam difficilem petentibus præbuit aurem, quod scilicet hanc philosophiæ partem physicam a rebus astronomicis excludentes, mediatricem illam noluerunt. Exoranda est itaque summoque studio excolendai intima hæc astronomiæ famula, illis qui suavissimo Uraniæ gremio, votis tandem potiti, conquiescere desiderant. Quæ quidem ut mihi sit propitia, summis studiorum præmiis ac meritis contendam, ut mediante illius opera suavissimos dominæ suæ vultus perspiciam. Meos amores enim celare non possum, nec tamen æmulos metuo. Sponsam habeat illibatam illam virginem (Astrorum Scientiam) quicunque erit cui palmam ipsa concesserit, mihi sat erit, si vel tædam maritalem nuptiis suis præferre me dignabatur.—Horrocii Opera Posthuma, Disp. i. cap. 2.

into the science of mechanics. The similar motion of bodies in the heavens is the phenomenon established by observation, which whether the cause of that motion can be known or not, is the physical principle; and geometry, by the application of similar mensurations, produces the science of astronomy: and the same might be observed of music in connexion with harmonics. All which departments of philosophy, by such application of mathematics, enjoy advantages different and superior to some other parts of physics.

Whoever therefore would hope for success in his philosophical researches, will not adapt physics to mathematics, but mathematics to physics, in obedience to the direction of the author of the Novum Organum, who hath observed, that "all natural inquiries succeed the best, when a physical principle is made to terminate in a mathematical operation[44]."

And thus we have shown, according to the rule prescribed by Lord Bacon, the friend

[44] Optime cedit inquisitio naturalis, quando physicum terminatur in mathematico.—Bacon. Nov. Org. lib. iii.

and father of philosophers, and according to the practice of Sir Isaac Newton, who exemplified the precepts of his great master, that all reasoning in natural philosophy is ascendent and descendent—from experiments to axioms, and from axioms to new discoveries[45].

Sect. IV.

Of Physical Truth.

BUT since the best and most accurate experiments that are instituted and conducted by human skill, which are the basis and support of all sound philosophy, cannot penetrate into the real essence of things; since they can only inform the senses of some of their apparent qualities, and of secondary, which we call physical causes, and generally only of the phenomena or effects themselves;

[45] Neque enim in plano via sita est, sed ascendendo et descendendo; ascendendo primo ad axiomata, descendendo ad opera.—Bacon. Nov. Org. lib. i. aph. 104.
See De Augm. Scient. lib. iii. cap. 3.

since the induction, by which the general truths are collected from particular experiments is only partial and confined, and extended by analogy, which is an indirect species of reasoning, never absolutely conclusive; since these general truths, which become the laws and principles of philosophy, do not possess the evidence of mathematical axioms; and lastly, since from these principles, particular, not general, conclusions are deduced,—physical truth must consequently partake of the nature and inferiority of their principles and mode of reasoning[1]. Though mathematics, by a friendly mixture and communication, often facilitate their production and elucidate their force, imparting to them, in all subjects capable of mensuration and where quantity can apply, the use and similarity of scientific demonstration; however certain, they are not to be pronounced absolutely necessary; and philosophically considered, they are in nature and

[1] Διόπερ φανερὸν ὅτι οὐκ ἔστιν ἀπόδειξις οὐσίας, οὐδὲ τῷ τί ἐστιν ἐκ τῆς τοιαύτης ἐπαγωγῆς, ἀλλά τις ἄλλος τρόπος τῆς δηλώσεως.—Aristot. Metaph. lib. vi. cap. 1.

evidence greatly inferior to mathematical conclusions[2].

Still the philosophy of nature is the field of utility and beauty. It ministers to the wants, and supplies many of the ornaments of life. It opens one of the universal books of God, in which his infinite power, his stupendous wisdom, and unbounded goodness are written with his own finger in most fair and convincing characters; and thus the material world is made the counterpart of the immaterial mind, in which the latter contemplates as in a glass the image of its Author. Yet after all the improvements which have honoured the labours of Boyle, Newton, Halley and others, whose studies, since the great Bacon founded the true, that

[2] Zealous for the honour and perfection of their favourite study, some of our modern philosophers strenuously contend that almost every thing in physics is demonstrable. "The ground and reason of which," observes one of better information, "I apprehend to be, that many of our geometricians, ambitious of dictating to us about the causes and first springs of Nature, while they can reach only to the measure of some of its effects, have not been careful to distinguish how far a mathematical conclusion will extend, and how far not." —Jones's Philosophy, p. 91.

is, the inductive logic, have conferred upon this nation the laurel of philosophy; so vast is its variety and extent, that our knowledge of nature is still very partial and imperfect. The more we know, the more we shall acknowledge to remain unknown, and the more readily subscribe to the verdict of that illustrious child of Wisdom who hath sublimely observed,—"God hath planted the world in man's heart, yet cannot man find out the work which he worketh from the beginning unto the end[3]."

We are still only in the infancy of knowledge, and, though not in the sense in which the word was used by the old philosophers, many qualities and causes are yet *occult*, which may be brought to light by future experiment and analysis. New inductions may be instituted, new axioms established, and new inventions discovered; and thus the great volume of nature is calculated, by the omniscience of its Author, to afford scope to this virtuous and honourable employment, till its whole system shall dissolve and vanish,

[3] Eccles. iii. 11.

and be succeeded by another of superior order. And then there shall be " a new heaven and a new earth," in which the First will himself take place of all secondary causes; when the film which is spread over the carnal eye shall be removed, new objects presented and new scenes disclosed, under the aspect and illumination of a brighter sun[4].

[4] Isaiah, lx. 19, 20; and Luke, xvii. 2.

On the general subject of this chapter, consult Herschel's Discourses on the Study of Natural Philosophy; Playfair's Dissertations on the Progress of Mathematical and Physical Science; Stewart's Philosophy of the Human Mind, vol. ii. chap. 4; his First Dissertation, chap. 2; Maclaurin's Account of Sir I. Newton's Discoveries, book iv. chap. 9; Reid's Essays, vol. ii. chap. 4; Browne's Lectures on the Philosophy of Mind; Adam Smith's History of Astronomy; Whewell's Bridgewater Treatise, &c.—*Editor.*

CHAP. III.

METAPHYSICS.

SECT. I.

The Logic of Metaphysics.

BOTH Aristotle and Bacon agree in styling this "the Universal Science," having universal being for its subject, but especially mind, the highest and most universal, in as much as it is the primary cause of nature, and as furnishing the principles of all other parts of learning. They likewise agree in terming it "the First Philosophy."

But what is first to nature is not the first to man; nature (*i. e.* the God of nature) deals in universals, man deals with particulars, from which he ascends by progressive steps to generals, and from generals to universals. Thus the course of human study

is the inverse of the course of things in nature. In this study or cultivation of physics, we have seen, in the foregoing chapter, the philosopher has always to deal with particular facts, from which he rises to generals. This study of nature was, therefore, first in respect of man to the study of universals; and hence, as we have observed, the science of universals obtained the name of metaphysics, literally μετὰ τὰ φυσικὰ, which sufficiently accounts for our present arrangement.

Metaphysical science, considered in its widest extent, is the science of the principles and cause of all things existing. But in its more confined and ordinary acceptation, it is the science of the human mind, as known to us by consciousness and reflection. The logic of metaphysics therefore consists in the study of the human faculties, by turning our thoughts inwardly upon our own mental operations, and then arranging them according to the phenomena which they exhibit; in analyzing faculties which are compounded into simple, and in tracing our mental operations. This logic is consequently based on the principle of induction with respect to

the phenomena of thought, in the same manner that the logic of physics is directed to the phenomena of external motion.

Sect. II.

Metaphysical Principles.

The science of metaphysics presents itself to us with advantage as succeeding to that of physics or natural philosophy, because it has run nearly the same course in the history of the world; so that the progress and history of the one, may serve to illustrate and exemplify the fortunes and history of the other.

With Aristotle and the ancient philosophers, they both laboured under the same fundamental defect, through the want of sound and solid principles for their legitimate investigation. Cultivated in the same school of factitious and assumptive logic, they began both at the wrong end. With them, general truths, *i. e.* propositions of their own supposition or invention, which they styled axioms, formed the basis of all science, instead

of beginning with particular facts, and ascending by a just induction to general principles. And thus the metaphysical axioms of the ancients were nothing better than gratuitous assumptions, instead of being the result of observations, accurately deduced from the actual motions and operations of the mind, through the medium of consciousness and self-reflection. Nor it is to be wondered that if their physical researches terminated in theories, which had little relation to the real laws of the external world, their researches into the regions of mind should have been still more distinguished by baseless fancies and chimeras.

From the false principles on which this science has so long been cultivated, it has become the theme of ridicule with many sensible men, and from the nature of the abstract subjects on which it treats, many philosophers have deemed it too abstruse and barren to reward their labours. Some good men, from the vast range of its subjects, and the depth and sublimity of its researches, have denounced its study altogether, as dangerous, vain, and presumptuous.

But, when brought down from the flights of imagination to the calm and sober study of our own faculties, what is more worthy of man than the mind of man? When built on the sound principles of observation and experience, no study can be more productive of utility and honour to the philosophical inquirer. But it should be pursued strictly on the rules of the Baconian logic—"Homo naturæ minister et interpres tantum facit et intelligit, quantum de ordine naturæ opere, vel *mente* observaverit; nec amplius scit, aut potest."

What then are its genuine principles, and what is the legitimate course of its study? The mind, though invisible, is known to us by its operations, as distinctly as external objects are known to our outward senses. Our consciousness is ever present, and by turning itself on its own axis can become the spectator and reviewer of all our mental operations, just as things hard or soft, rough or smooth, are known to the touch, or the beauteous tints of the rainbow are recognised by the eye.

Hence by an obvious analogy, as external

sense is the primary principle of all physical knowledge, so consciousness, or the internal sense, is the primary principle of all metaphysical science. This internal sense is keen, penetrating, and acute, and becomes wonderfully strengthened by thus concentrating its attention on the surrounding faculties. As the external senses discover the various qualities and affections of body, this interior sense discovers the various acts and operations of mind, and when in a sound and healthy state, it reports mental facts and phenomena with sufficient truth and accuracy, for all the purposes of human knowledge[1].

[1] On the general subject of metaphysical science, consult the works of Locke, Reid, Stewart, and Browne—Hobbes, Berkeley, Baxter (Andrew), and Hume with some caution and reserve. For the establishment of sound first principles, the Editor would recommend the works of Dr. Reid as superior to those of every metaphysical writer, ancient or modern, with which he is acquainted.

Sect. III.

Metaphysical Reasoning.

ACCORDING to our foregoing observations, reason begins her operations in this science, as in physics, with particulars; but here, internal sense, or consciousness, is the primary principle. By frequent observations on the acts and motions of the human mind, closely and accurately pursued, reason, on comparing them with each other, can distinguish their difference or agreement, and thus arrange them into their several orders or classes. And by frequent repetition of the same analytical process, reason can form the lower classes into more general classes. By this analysis, she can also discriminate one operation of mind from another, and attribute them to separate and distinct faculties,—the intellect, the will, and the imagination. She can observe the laws of association, the connexions of one faculty with another, and the general union and harmony of all.

The secondary materials for this reasoning is the history of the human mind, as recorded by others, describing numerous and authentic phenomena; but these should always be tested by ourselves, and submitted, as far as possible, to our individual scrutiny.

A fallacious estimate of the powers and capacities of the human mind, particularly that she enters on this stage of life furnished with innate ideas and principles, by which she is enabled to carry on her inquiries after truth to an unbounded extent, was the fundamental error which formerly prevailed, and which long prevented any real advance in the science of metaphysic. It was the honour of Mr. Locke to refute this absurd and most pernicious theory. (See his Essay, vol. i. book i. chap. 2, 3, 4.) But, in the pursuit of this error, he has been led into the contrary extreme, by referring all our original ideas to the sole principle of sensation. By principles, Mr. Locke denotes general truths, which we have called *secondary* principles, to distinguish them from the sources from which they are derived, which we have denominated primary principles.

Of these sources of knowledge, Mr. Locke allows but one, external sense, seconded by reflection—whereas we contend also for another, internal sense, or consciousness, which may also be aided by reflection. It is this difference which constitutes the great distinction between Mr. Locke and myself in our metaphysical inquiries, and herein I have the honour to be supported by Dr. Reid and his followers.

Whether such principles were considered as innate or acquired by Aristotle and his disciples, they were always gratuitously assumed, and not inductively formed by experience and observation. Hence the whole science of metaphysics continued for ages to rest on mere hypothesis and vague speculation. Nor was it, till Locke performed for this science the part of Bacon, that it could properly be said to rest on scientific principles. The same injury which had been inflicted on physics by gratuitous axioms, was inflicted on metaphysics by the doctrine of innate ideas.

And thus in this, as well as in the physical departments of learning, we have been

brought out of the false, into the true method of philosophising, by the patient efforts of induction and experience. We have witnessed with astonishment the brilliant discoveries which science has made in physics, by leaving the dreams of Aristotle, and confining its attention to the known qualities and phenomena of body. By a patient attention to the acts, and a sober investigation of the faculties and phenomena of mind, we may hereafter anticipate corresponding success in the study of metaphysics.

The process of reason is here therefore strictly inductive, and when by this process, secondary principles or general truths are established, little if any advantage can be derived from the use of syllogism.

As it is not the intention of this work, to descend to the discussion of the particular topics belonging to different sciences, but merely to delineate the general field of each, and to show how each may be cultivated with success, I shall forbear any further observations, with a single remark. I have often wished that this queen of science would

their relation to the respective faculties and departments of the human mind—the understanding (of which memory is part), the will, and the imagination; to point out the supremacy of conscience, as the judge and assessor of our moral conduct; to elucidate the effects of our associations of ideas; to ascertain the right method of reasoning belonging to every science, and to distinguish the kinds of truth resulting from each, with their various degrees and modes of assent—this is the business of that general logic which is the subject of my present undertaking. But truth, in its relation to the proper use and exercises of the mind, is that which more peculiarly belongs to metaphysics—whence it conducts the faculties, duly disciplined and instructed, into the enjoyment of universal truth[1].

[1] Consult Reid's Inquiry into the Human Mind, chap. i.; Browne's First Lecture on the Philosophy of the Human Mind; Stewart's Elements, vol. i. part 1 and 2, &c.—*Editor.*

CHAP. IV.

FACTS.

SECT. I.

The Logic of Facts.

FROM physics, the plan chalked out for the arrangement and execution of this general Chart of Truth leads us to that extensive department comprehending all those transactions, occurrences, and events which are known by the name of facts, as belonging to the same theoretic[1] province of mind, and entitled to the same distinction from subjects whether of practical[2] or poetical design.

[1] Τῆς δὲ θεωρητικῆς διανοίας, καὶ μὴ πρακτικῆς, μηδὲ ποιητικῆς, τὸ εὖ καὶ κακῶς, τ'αληθές ἐστι καὶ ψευδος.—Aristot. Ethic. Nicom. lib. vi. cap. 2.

[2] Οὐκ ἔστι δὲ προαιρετὸν ὠθὲν γεγονός, οἷον ὠθεὶς προαιρεῖται Ἴλιον πεπορθηκέναι. ὐδὲ γὰρ βουλεύεται περὶ τῦ γεγονότος,

This is a kind of truth, which is so direct and obvious in its nature, so open to the apprehension, and so familiar to the mind of all men, that it seems to have escaped philosophical inquiry and critical examination. As it is, however, a species of truth of more universal extent than any other, and of more immediate importance in every stage and sphere of life; and especially, since by the decree of Providence it has been made a principal foundation of those supreme and sublime truths, which are the main object of this analysis, it demands, in this place, a logical consideration [3].

ἀλλὰ περὶ τῦ ἐσομένυ, καὶ ἐνδεχομένυ. τὸ δὲ γεγονὸς ὐκ ἐνδέχεται μὴ γενέσθαι. διὸ ὀρθῶς Ἀγάθων,

Μόνυ γὰρ αὐτῦ καὶ θεὸς στερίσκεται,
Ἀγένητα ποιεῖν ἅσσ' ἂν ᾖ πεπραγμένα.

—Ibid.

[3] On the evidence of facts, as regards our external senses, the reader should study the original and profound "Inquiry" of Dr. Reid. Also Campbell's Dissertation on Miracles.—*Editor.*

SECT. II.

The Principle of Facts.

FACTS have a most intimate and inseparable connexion with physical science. As truths, they derive their existence from the same first principle, the notices and indications of the external senses; and had it not been for their close connexion with the subject of the succeeding chapter, they would have been entitled to the precedence in this logical arrangement, as they supply the foundation of all physical deductions; for without experiments, which are a species of facts, there can be no sound philosophy of nature.

But whereas physics quit the first impressions made upon the senses by individual objects, and from phenomena and effects by the aid of experiment descend to the investigation of qualities and causes, in order to form general laws for the proof of particular

truths[1], which are permanent, and will extend to all times and places so long as nature remains the same; facts, as truths, result immediately from the individual objects presented to the senses, from the phenomena and effects themselves, and though certain, are transient, and confined within the limits of time and place.

They are all particular independent truths, not deriving their proof from generals, as those of physics; but requiring for their confirmation, that a particular event, or series of events should occur to the ocular notice of a person or persons at a certain time and place; that a particular phenomenon appeared; or that a particular thing was heard, or seen, to be said or done. Thus for the proof of facts, the coincidence of a particular transaction, person, time, or place is absolutely required; and the evidence of the external senses of those who

[1] Philosophia individua dimittit, neque impressiones primas individuorum, sed notiones ab illis abstractas complectitur; atque in iis componendis et dividendis, ex lege naturæ et rerum ipsarum evidentia, versatur. Atque hoc prorsus officium est atque opificium rationis. Bacon. De Augm. Scient. lib. ii. cap. 1.

were the immediate witnesses is the first and last credential.

—That on Friday the 13th day of March 1789, the university and city of Oxford expressed their loyalty and affection to our amiable and illustrious sovereign, the father of his country, and the friend of all men, and testified a universal and unbounded joy for his recovery from a long and dangerous sickness, and his resumption of the throne of these kingdoms, by a general illumination,—this is a fact of which we, who were present, were rejoiced to be convinced; and of which conviction the evidence of sight, the most familiar of the senses, was the adequate and sufficient cause.—Here was a full coincidence of all the particulars which are requisite to evince and establish the truth of facts.

Sect. III.

Of Reasoning on Facts.

FAR from being the consequences or conclusions of any process of reason, facts result immediately from the senses. They convince the mind, without its considering or attending to their physical or other causes, and become themselves, as first principles of reasoning.

As truths, each of them stands on its separate and independent basis, terminating and concluding in itself; so that all direct comparisons and judgments between one fact and another, or between a fact and any other thing, is irrelevant to their truth, and consequently all inductive reasoning is excluded. For moral and political purposes they are often indeed generalized and arranged in classes; but as truths, they want no general propositions from which they are to be deduced as consequences; and as they admit of no secondary principle, all reason-

ing by syllogism or superinduction is of course totally superseded.

But though reason has no proper or direct concern with facts from their high privilege as first principles, it is never better or more essentially employed, than when it examines and inquires respecting them. The method which it pursues may indeed be very different from those we have been tracing whether in mathematics or physics (for give it fair play, and reason will, some way or other, adapt itself to every thing); it is not, however, to be rejected or discarded here. This useful office it performs, by examining whether the external senses, the first and final evidence of facts, are in a sound and healthy state; whether they are well and sufficiently informed; and whether they are subject to any impediment from nature, imposition from art, or fallacy from accident. In this exercise, she does not presume to change or to correct the verdict of the senses, by any preconceived notion or factitious determination of her own. Sensible of the supreme dignity and exclusive privi-

lege of first principles, she forbears to compare them with any thing else, or to judge of them by any medium but themselves. All that she presumes, is by indirect and collateral comparisons, to rectify and ascertain the evidence of sense by the evidence of sense; that is, to judge of it by its own verdict.

Thus, if on viewing any object with care and circumspection, what appears to our eye, appears the same to others, who see it at the same time and place; or if what appears to our eye at a certain time and place, has uniformly appeared the same at all other times and places; we conclude, from these comparisons and judgments, (which is an indirect mode of reasoning and a species of analogy) that the sense is sufficiently perfect and well-informed. And what contributes both to facilitate and ensure the conclusion is this—that facts are truths in which we are bred and conversant from infancy; that hourly experience in ourselves, confirmed by the express, and perhaps still more by the tacit acknowledgment of the same in others, would imme-

diately detect and expose any impediment, deception, or fallacy in the senses, and thus effectually secure the judgment from mistake or error.

And this we call a species of reasoning, because, as Dr. Reid justly observes, "The senses are all limited and imperfect, and that we are liable to error and wrong judgment in the use of all." They are "to be corrected by more accurate attention to their informations," by comparing and judging of this more accurate intelligence; but wherever there is comparison and judgment there is, according to our enlarged idea of reasoning, some act of reason.

The mode in which philosophers, ancient and modern, have affected to correct the senses by reason, is very different. They pretend to judge of the evidence of the senses by some subtle notions of their own invention; which is to judge of a first principle of reasoning by no principle in nature. This is the error in the use of reason so justly condemned by Dr. Reid, Essay ii. chap. 22.

Sect. IV.

The Truth of Facts.

THOUGH derived from the same first principle of knowledge with mathematical and physical truth, that of facts, logically viewed, is essentially different both from the demonstrations of the one, and the deductions of the other. It differs from them, as well in its nature and constitution, as in the mode of reasoning employed.

This species of truth enjoys the peculiar and exclusive privilege of being both intuitive and self-evident. As soon as presented, it is palpably and irresistibly felt at once; and it is so immediate, that it flashes conviction upon the mind through the medium of the senses, when sound and well-informed, without an act of direct comparison. It is so strong and invincible in operation, that it defeats the powers of judgment. Thus fact and truth, in common and vernacular language, are synonymous words; and the

strength of its evidence cannot be more forcibly or pointedly expressed, than by the vulgar phrase—"Seeing is believing."

As these truths are not only the most numerous, plain, and common of all others, but of the most interesting and personal concern to men; in condescension to their feelings and necessities, Providence hath made them the most obvious, easy, and familiar to the apprehension of all. By their frequency and incessant occurrence in the routine of human affairs, however various and multiplex they may be, they are equally obvious and familiar in their proximate and efficient causes.

From these singular and superior advantages by which facts are distinguished, in the general scale of truth, above every other kind, they have been singularly honoured, as will be shown in the sequel of this work, in their use and application, by the Author and Finisher of all truth.

CHAP. V.

HISTORY.

SECT. I.

The Logic of History.

THOSE important and interesting truths comprehended under the general name of facts, which determine the fortune of individuals, involve the welfare of societies, on which depend the fate of nations, and which fill all the busy and variegated scenes of life, are incessantly and unexpectedly turning up in the tide of things, and again as incessantly and irrecoverably buried in its vortex. They are by nature transient and irrevocable, confined and circumscribed within the strictest limits of time and place. So likewise from the constitution of humanity are the persons of men. In all cases, therefore, in which these do not hap-

pen to coincide with them both in time and place, this species of truth, taken in its widest comprehension, including characters and events as well as acts, cannot be personally and directly known.

This great chasm and defect, by which our personal intercourse is cut off from the largest and most valuable part of this useful and interesting knowledge, is filled and supplied by history,—that elegant retrospective mirror, which by its reflection opens to us a view into ages never to return, which gives facts an enlargement and extension to all times and places, and thus becomes the guide and instructor of human life [1].

[1] Historia, testis temporum, lux veritatis, vita memoriæ, magistra vitæ, nuncia veritatis.—Cic. de Orat. lib. ii. cap. 36.

Sect. II.

The Historical Principle.

ALL the actions, characters, and events which have existed, or do exist, in times or places, when and where we either did or could not witness them ourselves, if ever we may know them, (and these form the greatest proportion of our knowledge), it must be from the narration or testimony, that is, the authority of others. By narration, I mean to express the communication of facts, with which we are coincident in point of time, but not of place. Testimony, I apply, to the communication of those with which we are coincident neither in time nor place. These two are the necessary and indispensable vehicles of historical truth.

—That on Tuesday the 10th day of March 1789, the cities of London and Westminster exhibited similar tokens of their love and loyalty to their king, by a general illumination on the same joyful occasion above-

mentioned[1], is a fact of which we, who were not there, rejoiced to hear; of the truth of which we are as fully and certainly, though not so directly convinced, on the narration of others public and private, as we were of that which on the 13th we witnessed ourselves at Oxford. In the case of this fact, there was a coincidence of person and transaction in point of time, but not of place.

And both of these facts will be transmitted, as they deserve, to future ages, and received by them with almost the same degree of certainty, on the authority of sound and well authenticated testimony; in which case, all coincidence of person, transaction, time, and place must be removed.

All historical facts, as truths, derive their existence from narration and testimony, which are therefore to be regarded as their principles, agreeing in one, which is the main point of consideration—that they are both founded on the information and authority of others: and, as the short space of

[1] P. 197 *supra*.

man's life, to which narration has a reference, bears so small a proportion to the extent of time within the reach of human tradition and record, testimony may be used, as it often is, to express the whole, —the general principle of all historical truth.

Sect. III.

Historical Reasoning.

As in all parts of knowledge in which general principles are concerned, so in historical reasoning, we argue first to the principle, and thence downwards from the principle.

How then is the credit and authority of testimony, on which all history depends, established and confirmed?

Historical facts are all particular and individual in their existence; and by their nature removed from the evidence of the external senses; and as all general principles are formed by an induction of particulars, there must be some other native

evidence as a first principle, by which a number of these particular facts are estimated and their truth confirmed, sufficient to ensure the authority and warrant the general truth of the secondary principle of testimony.

The senses are doubtless the first informers, but memory is the register and storehouse of the mind, in which all the facts which they have witnessed, and all the truths which are otherwise obtained, are lodged and recorded with as much fidelity as is consistent with the condition of imperfect creatures. So far as relates to its retention, communication, and tradition, it is recognised and acknowledged as a first principle of truth. It is accordingly recognised by Lord Bacon, as that important department of the intellect to which history peculiarly belongs.

The memory of man does not profess to be infallible. It is subject to similar infirmities and defects with those of the external senses; and capable of being regulated and adjusted, by an act of reason, in a similar manner. After comparing it with its own exertions at

different times and in different instances, and after examining whether, in the instance under consideration, it is uniform and consistent with its other acts, reason confirms its fidelity so far established, and ensures it still further, by comparing it with other memories acting collaterally with it in the same instance. And here we may remark, that this department of mind has its different species and varieties. It is a fruitful field, but less cultivated by metaphysicians than almost any other, and as such we may earnestly commend it to their future attention.

But memory, however faithful it may be found, is not sufficient of itself to establish and erect testimony into a general principle of reasoning, since what it records is liable to be betrayed, disguised, or falsified in the act of utterance. It requires to be guarded and secured by another native and powerful dictate of the mind, the love of truth, which, as a collateral principle, comes in to the aid and support of memory.

Convinced of the existence of both these principles from our own consciousness and

internal feeling, presuming that all men formed of the same materials are cast in the same mould, and observing them to operate in the minds of all to whom that observation can extend; we conclude, by a strong analogy and induction, that they are universal. And we are convinced from an experience that does honour to human nature, that whenever interest, or any other evil and sinister motive, influences an individual or combination of men to counteract these native dictates, to reject the truth and espouse and propagate a lie; the lie is detested and contradicted as soon as found, and the truth is justified, vindicated, and avenged by the public voice. That truth, in opposition to the lie, strengthened and supported by self-approbation and the native sense of right in its assertor, will be sure to prevail at last. Nay, it is experimentally known, that when facts are duly attested by persons who are competent judges and of sufficient credit, men must and do believe them, and that they find it impossible to withhold their assent.

Upon the ground of these two first prin-

ciples, the one a native faculty, and the other a sublime affection of the mind, operating in conjunction, the credit of all history is originally founded. From the particular instances which are innumerable and incessantly occur, in which they are observed to act together in strict and faithful union, we derive, by a familiar and almost insensible induction, the authority and truth of testimony. This, as it is not only the general vehicle or channel of all historical facts of whatever kind, but the universal fountain from which they flow, has a right to be classed among the secondary principles of truth. Testimony is indeed of such great variety and extent, and of such frequent occurrence and vast importance in all the business and affairs of life, that (as is common in the use of many words), from the frequency of its application, it has appropriated to itself the name of *evidence*, which is a general term, equally applicable to the principles of other kinds of truth with historical.

This general principle is, however, very

different in its nature and constitution from mathematical, physical, and other axioms, as it is of much larger operation and extent; and accordingly the method of reasoning from testimony, in all particular instances, is very different.

Axioms, logically speaking, are the sources of truth, producing it in the minds of all who can apply them in reasoning; without respect to persons, times, or place. They are, therefore, general laws possessed of a certain standard, which is fixed and determined in itself, by which they impart the same degree of certainty and conviction in all the cases to which they are applied, namely, that which they themselves possess. Testimony, on the other hand, is not properly the source of truth; it is only the medium, however indispensable, through which truths, already deduced from other causes are conveyed from one mind to another. It is only the channel by which actual truths are converted into historical. This channel or instrument has an immediate connexion with and dependency on particular persons, times, and places, by which their power and opera-

tion are perpetually varied, become stronger or weaker, more contracted or more enlarged. It is not, therefore, a general law possessing one common rule or standard, by which is imparted in all cases the same degree of certainty and conviction.

Historical learning is consequently the reverse of philosophical. Philosophy consists in tracing generals, history in pursuing particulars. The testimony on which it is founded varies with the circumstances, in each particular instance to which it is applied[1]. Historical reasoning does not conclude by reducing particulars under general propositions by syllogism or superinduction. It has a more tedious and laborious process. It descends to the investigation of every particular historical fact through all the windings of testimony, either by tracing it up to its proper time, place, and the persons of its primitive witnesses; or by bringing it down from thence. It consists in a minute examination of particular witnesses, in a candid estimate of collateral proofs, and in

[1] Historia proprie individuorum est, quæ circumscribuntur loco et tempore.—Bacon. De Augm. Scient. lib. ii. cap. 1.

a conclusion formed upon a full induction and fair valuation of the whole[2].

The knowledge which we derive through the channel of history is consequently more various and extensive, more interesting and important, than perhaps the whole stock of our other information. The investigation of historical facts, which must be conducted by a particular and separate process, constitutes a very large proportion of the most useful labours and valuable collections of learned men. History involves in its composition many different and distinct objects, and has many different ends in view. In the execution, it receives from the pen of the historian many graces and embellishments, and from the interest which man always takes in the concerns of man, it be-

[2] Probability wanting that intuitive evidence which infallibly determines the understanding, and produces certain knowledge, the mind, if it would proceed rationally, ought to examine all the grounds of probability, and see how they make more or less for or against any proposition, before it assents to or dissents from it, and, upon a due balancing the whole, reject or receive it, with a more or less firm assent, proportionably to the preponderancy of the greater grounds of probability on one side or the other.—Locke, Hum. Und. book iv. chap. 15, sect. 5.

comes a species of writing the most instructive to the mind, and the most pleasing to the imagination. Divested, however, of these adventitious considerations, and logically viewed, it is the investigation of facts through the channel of testimony. It is the general rule by which this investigation is conducted, in bringing them down from the time of their actual existence;—First, to inquire whether the senses of the primitive witnesses were duly informed of the facts related, and they themselves competent to judge of them. Secondly, to examine whether these witnesses were honest and faithful relaters of these facts to others. Thirdly, as testimony, from the nature and necessity of things, is often committed to written record, to trace the purity and authenticity of that record through all the persons, times, and places, through which it has descended, and lastly, to strengthen and corroborate the whole conclusion, by the examination and adduction of collateral testimonies[3].—In this work of various learning, extensive

[3] In the testimony of others is to be considered, 1. The number, 2. The integrity, 3. The skill of the witnesses. 4. The design of the author, where it is a testimony out of a

inquiry, and attentive investigation, reason will, I fear, derive little help from mood and figure[4]. There is here accordingly very slight occupation for syllogism.

SECT. IV.

Of Historical Truth.

HISTORICAL truth derived from the principle of testimony, so different in its nature from all others, and by a method of reasoning which is peculiar to itself, differs

book cited. 5. The consistency of the parts and circumstances of the relation. 6. Contrary testimonies.—Locke Hum. Und. book iv. chap. 15, sect. 4.

[4] But, however it be in knowledge, I think I may truly say, it is of far less, or no use at all in probabilities. For the assent there being to be determined by the preponderancy, after a due weighing of all the proofs, with all circumstances on both sides, nothing is so unfit to assist the mind in that, as syllogism; which running away with one assumed probability, or one topical argument, pursues that, till it has led the mind quite out of sight of the thing under consideration; and, forcing it upon some remote difficulty, holds it fast there, entangled, perhaps, and as it were manacled, in the chain of syllogisms, without allowing it the liberty, much less affording it the helps, requisite to show on which side, all things considered, is the greater probability.—Ibid. book iv. chap. 17, sect. 5.

also from those which have been the subject of our previous discussion, in its operation and effect upon the understanding.

However certain and convincing it may be, when possessed of its greatest strength, it is indirect and secondary, amounting only to the highest summit of probability. As the testimony on which it depends, is in all cases particularly circumstanced and to be separately investigated, though all historical truth be of the same species, it will vary with these circumstances,—with the fidelity and success of the investigation, or with the clearness or obscurity of the media through which it comes,—almost from the verge of absolute certainty, through all the degrees of probability, down to the faintest shade of uncertainty and doubt. The assent with which the mind embraces it, in all the degrees and shades which it assumes, is called *belief*, which is stronger or weaker in its impression, in proportion to itself.

As it is only an enlargement of facts, and those other truths which have been previously considered, lengthened out and conveyed to us by testimony, it may be ranked under the

same common province. Being, however, more general in its operation, more frequent and familiar in its use, though inferior in force, it has, in common language, appropriated to itself the name of *truth*, as opposed to falsehood; just as the testimony, on which it is founded, has obtained the name of *evidence*.

But however different and inferior it may be, historical truth is that on which the mind of man with a peculiar satisfaction delights to dwell. It hath therefore pleased that gracious Providence, which benignly consults the feelings of humanity in the promotion of our good, to render it of the most interesting and important concern to men. It holds out some of the principal lights, by which we are obliged, from the condition of our nature, to steer our way through the present dark and mysterious scene, in which we are only allowed to walk as by the glimmering of a distant twilight, and "to see and to know in part." It is thus the knowledge of the past becomes connected with our present and future welfare.

CHAP. VI.

ETHICS.

SECT. I.

The Logic of Ethics.

LEAVING the theoretic division of this general chart, we now enter upon the practic, which is under the government and direction of the will—in other words, it is mind employed in moral action[1].

Aristotle has divided the whole field of knowledge into three grand provinces; and the line of distinction which he has drawn as the general confine between that of the rational theoretic mind, and those both of the practic and poetic, is this—that the first is productive of necessary, and the other two of contingent truth[2].

[1] Διάνοια πρακτική.—See p. 22.

[2] Ὑποκείσθω δύο τὰ λόγον ἔχοντα· ἓν μὲν ᾧ θεωροῦμεν τὰ τοιαῦτα τῶν ὄντων, ὧν αἱ ἀρχαὶ μὴ ἐνδέχονται ἄλλως ἔχειν, ἓν

Thus truth is the staple produce, and reason the common instrument of all.—But he descends to a more particular and philosophical distinction of the three provinces, according to the different nature and direction which truth assumes in each[3]. In the theoretic province, he represents it as originating with its subject[4], as standing in-

δέ γε ϕ τὰ ἐνδεχόμενα. And he further distinguishes them by calling the first ἐπιστημονικὸν, and that of the other two λογιστικόν.—Aristot. Ethic. Nicom. lib. vi. cap. 1.

Ὀρθῶς δὲ ἔχει καὶ τὸ καλέσαι τὴν φιλοσοφίαν ἐπιστήμην τῆς ἀληθείας· θεωρητικῆς μὲν γὰρ τέλος ἀλήθεια, πρακτικῆς δὲ ἔργον, καὶ γὰρ ἐὰν τὸ, πῶς ἔχει, σκοπῶσι, οὐ τὸ αἴτιον καθ' αὑτὸ, ἀλλὰ πρὸς τὶ, καὶ νῦν θεωροῦσιν οἱ πρακτικοί.—Aristot. Metaph. lib. ii. cap. 1.

Etiamsi activa scientia etiam veritatem rerum agendarum considerat, tamen a contemplativa duobus modis differt. Primum enim contemplativa veritatem per se considerat ut ultimum finem: activa autem veritatem per accidens considerat quatenus accidit rebus agendis, ut etiam cognosci queant et veritatem in sese habeant. Deinde contemplativa scientia veritatem considerat sempiternam, quæ semper et omni tempore est veritas: activa autem veritatem considerat secundum relationem, et tempus præsens atque certum, relatione cæterarum circumstantiarum quæ in actione considerandæ sunt, ubi aliquando quiddam verum et bonum esse potest, alio autem tempore verum et bonum propter circumstantias non est.—Joannes Ludov. Haven.

[3] Ἀμφοτέρων δὴ τῶν νοητικῶν μορίων ἀλήθεια τὸ ἔργον.—Aristot. Ethic. Nicom. lib. vi. cap. 2.

[4] Ἐν ᾧ ἡ ἀρχὴ τῆς κινήσεως καὶ στάσεως, ἐν αὐτῷ δῆλον ὅτι οὔτε πρακτική ἐστιν οὔτε ποιητική.—Aristot. Metaph. lib. vi. cap. 1.

dependent, and terminating in itself[5]. In the practic, it originates in the mind of the agent[6], joins itself to correct desire with which it mixes and cooperates[7], and keeps in prospect a moral end beyond itself. In the poetic, it originates more in the inventive mind[8] of the artist, and through the instrumentality of different means, intends and accomplishes a still farther end[9], which is properly termed effect.

This distinction of the Peripatetic, how-

[5] Τῆς δὲ θεωρητικῆς διανοίας, καὶ μὴ πρακτικῆς, μηδὲ ποιητικῆς, τὸ εὖ καὶ κακῶς, τἀληθές ἐστι καὶ ψεῦδος· τοῦτο γάρ ἐστι παντὸς διανοητικοῦ ἔργον.—Aristot. Ethic. Nicom. lib. vi. cap. 2.

[6] Τῶν δὲ πρακτικῶν, ἐν τῷ πράττοντι ἡ προαίρεσις· τὸ αὐτὸ γὰρ τὸ πρακτὸν καὶ προαιρετόν.—Aristot. Metaph. lib. vi. cap. 1.

[7] Τοῦ δὲ πρακτικοῦ καὶ διανοητικοῦ, ἡ ἀλήθεια ὁμολόγως ἔχουσα τῇ ὀρέξει τῇ ὀρθῇ. πράξεως μὲν ὖν ἀρχὴ, προαίρεσις, ὅθεν ἡ κίνησις, ἀλλ' οὐχ ὅ ἕνεκα. προαιρέσεως δὲ, ὄρεξις καὶ λόγος ὁ ἕνεκά τινος· διὸ οὔτ' ἄνευ νοῦ καὶ διανοίας, οὔτ' ἄνευ ἠθικῆς ἐστιν ἕξεως ἡ προαίρεσις. εὐπραξία γὰρ καὶ τὸ ἐναντίον ἐν πράξει ἄνευ διανοίας καὶ ἤθους οὐκ ἔστι. διάνοια δ' αὐτὴ οὐδὲν κινεῖ, ἀλλ' ἡ ἕνεκά του, καὶ πρακτική.—Aristot. Ethic. Nicom. lib. vi. cap. 2.

[8] Τῶν μὲν γὰρ ποιητικῶν ἐν τῷ ποιοῦνται ἡ ἀρχὴ, ἢ νους ἐστιν, ἢ τέχνη, ἢ δύναμίς τις.—Aristot. Metaph. lib. vi. cap. 1.

[9] Αὕτη γὰρ καὶ τῆς ποιητικῆς ἄρχει. ἕνεκα γάρ του ποιεῖ πᾶς ὁ ποιῶν· καὶ οὐ τέλος ἁπλῶς, ἀλλὰ πρός τι, καὶ τινὸς τὸ ποιητὸν, ἀλλ' οὐ τὸ πρακτόν. ἡ γὰρ εὐπραξία τέλος, ἡ δ' ὄρεξις, τούτου.—Aristot. Ethic. Nicom. lib. vi. cap. 2.

ever philosophical, may be in some respects too metaphysical and refined. As all the parts of knowledge, which do not belong to the practic and poetic provinces, must, according to this division, be included in the theoretic, he has not made the outline of that sufficiently comprehensive. The object of theoretical learning is not confined to mere speculative truth, which terminates in itself alone. It extends, as we have seen, to the nature and properties of external things, and takes account of what is done and doing in the world, as truths adapted to all the uses and purposes of life; whilst the object of practical learning is the knowledge of good and evil, with a view to the right and responsible conduct of life. The end of the former is utility; the end of the latter is happiness.

But before we advance to this practical department, as the subject of rational investigation and productive of truth terminating in moral action, another distinction or subdivision must be drawn. No part of learning has been more involved and com-

plicated, in consequence of the vague and indefinite mode in which it has been treated, than moral philosophy; whence much obscurity and confusion have been brought into that most interesting and extensive science.

Before men can act in a moral capacity, they must first know how to act. Thus the ethical province, taken in its full extent, consists of two parts—the knowledge, and the practice; which, however inseparable they may be in the production of moral virtue, are distinct considerations in the eye of science and philosophy. It is with this knowledge, as a species of truth deducible from principles and propositions by an act of reason, or what moralists have been pleased to call practical intellect, independently of the action, that its logic is properly concerned[10]; and it is this part of ethics to which the present chapter is confined. But this specific truth, resulting from right reason, and forming the basis of mo-

[10] Nulla potestas aut imperium in voluntatem tribui debet intellectui; cujus quippe munus solum est bonum atque verum cernere, deque eo judicare.

rality, is like all other speculative truth dead and inactive, till it be invigorated and enlivened into action by the motions and affections of the will[11], from which it is denominated *practical* truth, and arranged under that department of mind. Here therefore the other field of ethical cultivation opens to our view, which consists in influencing that will; in exciting and stimulating it to virtuous actions on the one hand, and in soothing and restraining it from vicious actions on the other. This part of morality consists rather in persuasion than conviction, and is properly the rhetoric of ethics. It must, however, be acknowledged as the crown and glory of the science; as a philosophy which confers the highest honour on human nature. It descends to the first springs and movements of the heart. It penetrates the inmost recesses of the mind. It both subdues and animates the passions, and regulates all the motions and affections of the will, by holding out to it the incentives of hope and fear. Its labour is various and

[11] Velle autem eligere, aut imperare solius voluntatis est. —Lang. Ethic. p. 13.

extensive. It attends to every character and disposition. It consults the particular inclinations and seconds the natural propensities of men. And by the application of every expedient which reason and prudence can suggest, it nourishes the seeds of virtue into habits, and subdues and extirpates those of vice. Its office however is not less difficult than honourable, and has been more superficially attempted than successfully performed.

Thus moral virtue is a compound of two ingredients—right reason and well-directed appetite, which blend and incorporate together[12]: and when ethical truth is, by a virtuous determination of the will, reduced to its just and proper action; when it is employed to regulate the practice, to form the habits, to influence the morals and purify the lives of men, it flows in all the channels

[12] Εστι δ' ὅπερ ἐν διανοίᾳ κατάφασις καὶ ἀπόφασις, τοῦτ' ἐν ὀρέξει διωξις καὶ φυγή, ὥστ' ἐπειδὴ ἡ ἠθικὴ ἀρετὴ, ἕξις προαιρετικὴ, ἡ δὲ προαίρεσις, ὄρεξις βουλευτικὴ, δεῖ διὰ ταῦτα, τόν τε λόγον ἀληθῆ εἶναι, καὶ τὴν ὄρεξιν ὀρθὴν, εἴ περ ἡ προαίρεσις σπουδαία· καὶ τὰ αὐτὰ, τὸν μὲν φάναι, τὴν δὲ διώκειν. αὕτη μὲν ὂν ἡ διάνοια καὶ ἡ ἀλήθεια πρακτική.—Aristot. Ethic. Nicom. lib. vi. cap. 2.

of love to God and good will towards each other, and shines out in all the living portraits of active virtue, constituting that illustrious branch of wisdom, which has been distinguished by the name of charity[13].

Having endeavoured, by these preliminary observations, to ascertain and define the proper boundaries of this branch of learning, which is of vast extent and comprehension, and which has been treated in general in a desultory and promiscuous way, by poets and orators, by moralists and divines; we shall descend with the greater precision to what are properly called the principles of ethics.

[13] See p. 4 *supra*.

Sect. II.

The Ethical Principle.

THAT native and original evidence, which is the first principle of all morality, forms an instinct of our common nature, implanted in the human breast by the hand which formed it, interwoven in the very stamina of our constitution, and given, as all instincts are, to direct us to our good. This is another first and universal inlet of knowledge to the mind; and some philosophers have very properly given it the name of internal or moral sense, in contradistinction to external sense, the other great and universal inlet of natural light[1]: which different evidences or

[1] Notandum tamen, lumen naturæ duplici significatione accipi. Primo, quatenus oritur ex sensu, inductione, ratione, argumentis, secundum leges cœli ac terræ: secundo, quatenus animæ humanæ interno affulget instinctu, secundum legem conscientiæ, quæ scintilla quædam est, et tanquam reliquiæ, pristinæ et primitivæ puritatis. In quo posteriore sensu præcipue particeps est anima lucis nonnullæ, ad perfectionem intuendam et discernendam legis moralis. Bacon. De Augm. Scient. lib. ix. cap. 1.

first principles of knowledge, in their several operations upon things, form indeed the clearest and most philosophical distinction between theoretical and practical truth. This evidence of internal sense is the dictate of conscience which reigns predominant in the human breast, as a remaining spark of its native light, and as an indelible witness of that consummate purity and perfection, in which it was originally designed. This moral principle of conscience has, by some philosophers, been justly represented as "God within us." It derives its essential truth immediately from the presence of God, the moral governor, the beginning and end of all truth;—since the goodness of God, as it could not create man to be imposed on and deceived by his external senses, so neither could it have given him this internal sense to impose on or deceive his moral faculties. Locke was however of a contrary opinion, and this, we consider, the fundamental error of his Essay on the Human Understanding, in which he has been followed by Hartley and Priestley, and other celebrated writers. But if the authority of philosophers

be any thing on such a question, we may appeal to Bacon and Butler, as more than a sufficient counterpoise.

This native and internal sense is the immediate and involuntary criterion of a few general truths, which in their joint operation upon the mind lay the foundation of moral obligation, the source and spring of moral action.

One truth recognised by this internal sense is an essential difference in the quality of all moral thoughts and actions, and the general distinction of them into good and evil. By this intuitive sense, men pass a judgment both on their own thoughts and on those of others. In doing this, it is perfectly analogous to the external senses, for the discovery is made by the same immediate and intuitive discernment, by which they distinguish their respective objects: which analogy is strongly and pointedly expressed in the language of holy writ. As the carnal eye distinguishes "darkness from light, and light from darkness;" or the taste "bitter from sweet, and sweet

from bitter;" so does the moral eye distinguish "evil from good, and good from evil," by a native faculty no less inherent and familiar, than that of seeing colours, hearing sounds, or distinguishing tastes are in their proper and respective organs[2].

By the same instinctive impulse of its own, the mind is informed of another universal truth, the existence of the will, that sublime and distinguishing prerogative of man, by which he is enabled to choose the good and avoid the evil. Long and subtle are the disquisitions which have been spun by the refinement of modern metaphysicians on that favourite topic, the freedom of the will. They might however in compassion to their readers, and in mercy to themselves, have saved much useless labour, only by changing the question, and disputing (for they are too ready to dispute every thing) the existence of the will at once. That the will is free, is an identical and convertible proposition. Where there is will, there

[2] See Bp. Butler's Dissertation "Of the Nature of Virtue," and his three admirable Sermons upon Human Nature.—*Editor.*

is freedom; and where there is freedom, there is will. Dearly as the philosophers of old loved disputation, they had more regard for the honour of their logic, than to waste their syllogisms on so absurd a question. —All agency must be free to be moral, consequently will and freedom are identical.

It is also the same conscious and internal sense, which, on the voluntary commission of evil, wounds the breast with pungent involuntary pain; or which, on the voluntary performance of good, expands the heart with pure and involuntary pleasure. We not only pass a discriminating judgment on moral thoughts and actions, as right or wrong, true or false; but we condemn some as deserving of punishment, and approve others as worthy of reward. From these native sentiments, springing out of our very frame, another universal truth therefore results, by immediate implication—that all good will be succeeded by reward, and all evil by punishment. "Wickedness," in the elegant and pointed language of Solomon, "condemned

by her own witness, and being pressed by conscience, always forecasteth grievous things[3]."

These great and universal truths operating upon the mind of man,—that superior and diviner part of his existence,—by a necessary and incessant impulse, imply with the aid of a little reason the existence of a superior law, to which we are necessarily obliged, and consequently the existence of a moral governor. As the author of that law, he is the rewarder of all voluntary good, as consistent with his nature, and conformable to his will, the unchangeable standards of all moral truth, and he is the punisher of all voluntary evil, as adverse to both. These sentiments and convictions, not only evince the mind and will of the Moral Governor of the universe, and thus evidence his law; but they also declare that he is disposed to reward those who obey, and punish those who disobey that law. Thus we arrive at the ultimate foundation of all moral government and obligation, immovably fixed in

[3] Wisdom, xvii. 11.

the attributes and will of God[4], erected in his goodness, established in his justice, and sanctioned by his power.

From this foundation all religion springs. It is the obedience of man, the moral agent, to the will and law of God, the moral governor. Hence we see the light of nature taking its origin, as a part of the law uncreated and eternal, as a glimpse of the divine and immaculate light, shining though dimly in the breast of man. Hence we see that every man has the "law of God written in his heart," and is made amenable to a tribunal which is spiritual and invisible. And hence the apostle argues, that they, who, deprived of the advantage of a fuller and clearer light, by the dictates of con-

[4] As it is the nature of the independent first Cause of all things, to be obliged by his own wisdom; so it seems to be the nature of all dependent intelligent beings, to be obliged only by the will of the first Cause.

"All things therefore (says Hooker, the great master of reason, Eccl. Pol. book i. sect. 2) do work after a sort according to a law, whereof some superior, to whom they are subject, is author; only the works and operations of God have him both for the worker, and for the law, whereby they are wrought. The Being of God is a kind of law to his workings; for that perfection which God is, giveth perfection to what he doeth."—Warb. Div. Leg. book i. sect. 4.

science and the guide of reason, conform their actions to the will of God, "are a law unto themselves[5]."

All truth is therefore born of God. That which is natural springs every where from his works, and that which is moral results every where from his will, reflected on us by the medium of conscience or internal sense. This is God within,—that clear and invincible evidence of his Being, shining in the human mind, as a ray of the divine, and discovering to men in part his will, and by the performance of that will, through the merits of another, their way to happiness. Thus, even on the authority of this natural evidence, we may exclaim, with the royal psalmist—"Verily there is a reward for the righteous, doubtless there is a God that judgeth the earth[6]."

As the external senses are the ultimate criteria of all material objects, this internal sense is the ultimate criterion of all moral actions; and though in its acts and opera-

[5] Rom. ii. 14, 15. [6] Psalm lviii. 10.

tions as a guide to truth, it may be subsequent to them, it is prior both in use and dignity. In the analogy which subsists between these two great inlets of all human knowledge in their exercise and effects, we cannot but observe with admiration, that uniformity of design, which marks all the works of Him, who is unchangeable and the same, and that consistency of operation which pervades the universe. We know from too frequent experience, that as the former are liable, through ill habit or distemper, to be vitiated and even lost; so the other from corresponding causes is subject to corresponding effects. The eye, the most perfect of the senses, is liable to great injuries and disqualifications, and is often rendered incapable of its proper functions. The taste, from corresponding causes, is liable to corresponding defects and perversions. By long habit and abuse, the taste of some is known to relish that which is abhorrent to others. We are thus informed by an experience, which none can controvert, that the external senses, which are the inlets of our natural knowledge, and common to all men, are in some cases pro-

ductive of different and even contradictory sensations.—And because we find the same to be the case with conscience, why should Locke, or other philosophers, discard it as the native principle of moral truth? Though this sublime principle of morals, which is the theme of our present consideration, may sometimes have been so far weakened in its evidence, or perverted in its use, as even to persuade that great philosopher of its non-existence[7]; it is an authority so supreme and permanent in the jurisdiction of the human mind, and so properly innate, that its power can never be entirely banished or discharged, till the mind itself is totally changed or annihilated.

[7] See Mr. Locke's first book on Innate Practical Principles, chap. iii. sect. 8. "If conscience be a proof of innate principles, contraries may be innate," &c.

The principles however, both speculative and practical, which Mr. Locke is in this book proving not to be innate, are maxims and general propositions; not evidences, but axioms; not primary but secondary principles: which indeed so far from being innate are generally the conclusions of much reasoning and investigation. Yet, that many of these maxims are implanted in the mind by nature, as the foundations and principles of all its knowledge, never to be questioned, but always to be assumed and granted, was a fundamental and most inveterate error, which this great man combated with success.

Sect. II.

Of Ethical Reasoning.

UPON these congenial and collateral truths,—the distinction between good and evil, the existence of the will, reward and punishment,—implicitly resulting from the same first principle, and acting, as they always do, in perfect conjunction and unison, all moral reasoning is ultimately founded.

Convinced by experience of their uniform operation on ourselves in particular instances perpetually occurring, and beholding that uniform operation still more confirmed by the experience and observation of all others, in every stage and sphere of life, and by the records of all ages,—we are obliged, by a kind of tacit induction, to admit the truth of two moral propositions corresponding to each other, which are universal in their operation and extent:—

"All voluntary good will have reward."

"All voluntary evil will have punishment."—

Such are the two cardinal axioms, or secondary principles, from which the authority of all ethical deductions is derived, and on which they ultimately depend.

But all morality consists of particular actions, deriving their specific character and complexion from different relations. These moral actions are varied and multiplied by the triple relation in which men are placed—first, to God their moral governor; secondly, to men their fellow-subjects in their different stations and connexions; and thirdly, to the purity and propriety of their own personal characters. Hence they swell into such number and complexity, that reason can neither distinguish the precise nature of their good or evil, nor apportion with sufficient discrimination their reward or punishment, by reducing them under one or the other of these universal axioms directly, or by any single effort, so as to define and ascertain their moral truth.

From a view of these relations therefore

moralists are under the necessity of arranging actions in different kinds and classes, of ascertaining in each its specific good or evil, and apportioning to every class its just degree of reward or punishment. Under each relation, they form propositions less general than others, as mediate principles or middle axioms subordinate to them. To these all particular actions, as they occur in the different departments of moral government, are referred, in order to derive from them their specific truth.

It is in the formation of these axioms or secondary principles, in every branch of moral science, that the force of ethical reasoning is principally exerted. The method which it employs is consequently inductive. Morality in all its parts consists of individual or particular cases[1], and it is on the observation of a number of these individuals or particulars, possessing the same qualities and determinations, adduced and

[1] Ἔστι δὲ τῶν καθ' ἕκαστα καὶ τῶν ἐσχάτων, ἅπαντα τὰ πρακτά· καὶ γὰρ τὸν φρόνιμον δεῖ γινώσκειν αὐτά.—Aristot. Ethic. Nicom. lib. vi. cap. 11.

collected, that general propositions are established.

On the foundation of these inductive aggregates are erected all the systems of moral science, differing from each other, according to the relations. From the relation in which men stand to the Deity and his different attributes exercised towards them, results a train of numerous correlative obligations, which considered as general laws form the system of theology. As the great society of mankind is divided into communities and states, from the relations subsisting between them, spring those reciprocal duties which form the system of the law of nations. As these communities and states split and divide into smaller bodies, collective and individual, more numerous and complex relations arise, productive of more numerous offices, forming the system of civil law; of which many parts for public utility are enacted and sanctioned by public authority. As these larger bodies are again broken into families, the duties which arise from domestic relation become more personal and confined, and form the system of econo-

mical prudence. And as each individual in every station and situation of life owes an obligation to his neighbour and himself, and to the value of his character, as a free and moral agent, possessed of many privileges and distinctions; from the discharge of these obligations many personal and most important duties result, which constitute the system of ethics in its more appropriate sense.

From this short view of man in his several relations, how different, how various, and numerous are the species of moral action in which he is capable of being employed! And it is no mean honour which is due to the science in contemplation, and to the logic which it employs, that, when they are well-adjusted and arranged in general and subordinate classes, with their appropriate names and characters, as those of particular duties and sins, virtues and vices, the nature of each particular action, with the correspondent proportion of praise or blame, reward or punishment, may be determined with some competent measure of philosophic exactness and precision.

After the axioms are once founded in the several divisions of moral science, it only remains to apply particular actions to them, as general rules, the truth of which they will in general easily determine. This is however sometimes an act of nice judgment and acute discrimination. The difficulty arises, partly in selecting the right rule to which the action belongs, out of many others similar and nearly akin; but chiefly in accurately distinguishing the action, which varies its moral feature with the circumstances attending it, insomuch that cases occasionally occur so singular and special, that no rule has yet been formed to which they can be reduced.

When the general propositions happen to lie at a considerable distance from the particular cases to be proved by them, so that the reasoner has to ascend through a range of mediate propositions, syllogistic reasoning may have its use. But if the discovery of truth be his only object, he will find it in the course of a very few syllogisms, and without the parade of a protracted disputa-

tion. For their private amusement indeed men may syllogize as much as they please, if they do not annoy the public; but they should do inductive reasoning the justice to allow, that till general ideas are formed, there can be no definition[2], and consequently no syllogism; and when they are formed, whether the definitions be good, or the syllogisms conclusive, does not so much depend on themselves, as on the soundness of the induction by which they are generalized.

Between inductive and syllogistic reasoning therefore on ethical as well as on physical subjects, and indeed on all others[3], excepting

[2] Ὁρίσμος ἐκ γένους καὶ διαφερῶν ἐστιν.—Aristot. Top. lib. i. cap. 8.

[3] Etiam dubitabit quispiam potius quam objiciet; utrum nos de naturali tantum philosophia, an etiam de scientiis reliquis, logicis, politicis, secundum viam nostram perficiendis, loquamur. At nos certe de universis hæc, quæ dicta sunt, intelligimus: atque quemadmodum vulgaris logica, quæ regit res per syllogismum, non tantum ad naturales, sed ad omnes scientias pertinet; ita et nostra, quæ procedit per inductionem, omnia complectitur. Tam enim historiam et tabulas inveniendi conficimus de ira, metu et verecundia, et similibus; ac etiam de exemplis rerum civilium: nec minus de motibus mentalibus memoriæ, compositionis et divisionis, judicii, et reliquorum; quam de calido et frigido, aut luce, aut vegetatione, aut similibus.

mathematics, how slight is the comparison in respect of logical value! Induction proceeding on experience and practice, however slow in operation, is sure in its effect. Syllogism proceeding generally on speculative, vague, and ill founded axioms, however ready, is fallacious; and has produced no other effect, than that of filling many a useless and unwieldy volume with loads of learned lumber[4]. "The moral treatises," says our great reformer, "which are not seasoned with experience, but drawn only from a general and scholastic notion of things, are, as touching such matters, commonly idle and fruitless discourses.—For

Sed tamen cum nostra ratio interpretandi, post historiam præparatam et ordinatam, non mentis tantum motus et discursus (ut logica vulgaris), sed et rerum naturam intueatur; ita mentem regimus, ut ad rerum naturam se, aptis per omnia modis, applicare possit. Atque propterea multa et diversa in doctrina interpretationis præcipimus, quæ ad subjecti, de quo inquirimus, qualitatem et conditionem, modum inveniendi nonnulla ex parte applicent.—Bacon. Nov. Org. lib. i. aph. 127.

[4] Eximie hoc atque verissime Afranius poëta de gignenda comparandaque sapientia opinatus est, quod eam filiam esse Usus et Memoriæ dixit. Eo namque argumento demonstrat, qui sapiens esse rerum humanarum velit, non libris solis, neque disciplinis rhetoricis dialecticisque opus esse; sed oportere eum versari quoque exercerique in rebus comi-

the labours of speculative men in active matters, do seem to men of experience little better than the discourses of Phormio appeared to Hannibal, who esteemed them only as dreams and dotage[5]."

We have here attempted a compendious sketch of the general office of reason in the province of morality. From the interest which the human mind must naturally and necessarily take in questions of moral action as the criterion of happiness, this

nus noscendis periclitandisque: eaque omnia acta et eventa firmiter meminisse; et proinde sapere ac consulere ex his, quæ pericula ipsa rerum docuerint, non quæ libri tantum aut magistri per quasdam inanitates verborum et imaginum, tanquam in mimo aut somnio dictitaverint. Versus Afranii sunt in Togata, cui Sellæ nomen est:

Usus me genuit, mater peperit Memoria.
Σοφίαν vocant me Graii, vos Sapientiam.

Item versus est in eandem ferme sententiam Pacuvii, quem Macedo Philosophus, vir bonus, familiaris meus, scribi debere censebat pro foribus omnium templorum:

Ego odi homines, ignava opera, et philosopha sententia.

—Nihil enim fieri posse indignius neque intolerantius dicebat, quam quod homines ignavi ac desides, operti barba et pallio, mores et emolumenta philosophiæ in linguæ verborumque artes converterent; et vitia facundissime accusarent intercutibus ipsi vitiis madentes.—A. Gellius, lib. xiii. cap. 8.

[5] Tractatus autem, qui experientiam non sapiunt, sed ex

science has been the subject of more general investigation in every age, than any other. The old philosophers honoured it with especial regard. Socrates, the father of the ancient moralists, was said on that account to have brought philosophy down from heaven, and to have introduced her into the society of men[6]. He enhanced his worth and dignity as a philosopher, in the estimation of the Roman orator, by relinquishing physical studies, of which the ancients, from a wrong method of pursuit were mainly ignorant, that he might devote his attention

notitia rerum generali et scholastica tantummodo deprompti sunt, de rebus hujusmodi inanes plerumque evadunt et inutiles. Quamvis enim aliquando contingat, spectatorem ea animadvertere, quæ lusorem fugiant; atque jactetur proverbium quoddam magis audaculum, quam sanum, de censura vulgi circa actiones principum, *stantem in valle optime perlustrare montem;* optandum tamen imprimis esset, ut non nisi expertissimus et versatissimus quisque se hujusmodi argumentis immisceret. Hominum enim speculativorum, in materiis activis, lucubrationes, iis, qui in agendo fuerint exercitati, nihilo meliores videntur, quam dissertationes Phormionis de bellis æstimatæ sunt ab Hannibale, qui eas habuit pro somniis et deliriis.—Bacon. De Augm. Scient. lib. vii. cap. 2.

[6] Primus philosophiam devocavit e cœlo, et in urbibus collocavit, et in domos etiam introduxit.—Cic. Tusc. Quæst. lib. v.

to morality alone[7]. Xenophon and Plato have recorded the precepts of their divine master in a familiar and instructive manner, characteristic of the dignity and simplicity of his exalted mind. Aristotle, the disciple of the last, has collected the ethics of antiquity, and arranged them in a clear and lucid system. He did this apart from all logical modes and figures. He has drawn all the virtues with great exactness of truth and nicety of distinction, and has treated the whole subject of ethics in a concise, elegant, didactic style. When we consider the extent and variety of his studies, the relative disadvantages under which he laboured, and the age in which he lived; when we view this great moralist, as unacquainted with that evangelical truth, by whose divine maxims future moralists have profited, but which did not appear on this terrestrial stage, till two centuries after his departure; we cannot contemplate his system of morality,

[7] Socrates mihi videtur primus, a rebus occultis et ab ipsa natura involutis, in quibus omnes ante eum philosophi occupati fuerunt, avocavisse philosophiam, et ad vitam communem adduxisse, ut de virtutibus et vitiis, omninoque de bonis rebus et malis quæreret.—Ibid. Acad. lib. i. cap. 4.

whether for the purity of its general maxims, the value of its collection, or the justness of its arrangement, without sentiments of the profoundest love and admiration.

Many and valuable are the precepts of the sages of antiquity, and though sometimes defective in their matter, on account of the false or partial principle of moral obligation from which they sprung, both the method and style in which they are delivered, form admirable models of all future imitation. Their defects are owing to the separation which they made of the three great and fundamental truths[8], on the inviolable union of which all moral reasoning should be grounded,—Plato having been exclusively the patron of the one, Aristotle of the other, and Zeno of the third—above all; in not paying a just attention to the true origin and end of all moral action,—the will and attributes of God.

Some of our modern philosophers have not only neglected their virtues, but have

[8] "On these three principles,—the moral sense, the essential difference in human actions, and the will of God,—is built the whole edifice of practical morality."—Warburton.

imitated and outraged their faults, although a far more perfect exemplar of morality has been received from heaven. In their eternal squabbles about the true foundation of morality, and the obligation to its practice, they have sacrilegiously untwisted this threefold cord; and each running away with the part he esteemed strongest, hath affixed that to the throne of God, as the golden chain that is to unite and draw all to it"—"Thus a spirit of dispute and refinement hath so entangled and confounded all our conclusions on a subject, in itself very clear and intelligible, that were morality herself, of which the ancients made a goddess, to appear in person among men and be questioned concerning her birth, she would be tempted to answer as Homer does in Lucian, that her commentators had so learnedly embarrassed the dispute, that she was now as much at a loss as they to account for her original." "Thus have men, borne away by a fondness to their own idle systems, presumptuously broken in upon that triple barrier, with which God has been graciously pleased to cover and secure virtue, and given advan-

tage to the cavils of libertines and infidels; who, on each of these principles thus advanced on the ruins of the other two, have reciprocally forged a scheme of religion independent of morality, and a scheme of morality independent of religion; who, how different soever their employments may appear, are indeed but twisting the same cord at different ends, the plain design of both being to overthrow religion[9]."

[9] This quotation is made up of several distinct sentences in Warburton's Legation, book i. chap. 4, and can scarcely be understood, without referring to the original.

On the general subject of this chapter, consult Sir J. Mackintosh's Dissertation on Ethical Philosophy, Bishop Butler's Sermons on Human Nature, Blakey's History of Moral Science, Stewart's Elements of Moral Philosophy, Reid on the Active Powers, &c. &c.—*Editor.*

Sect. III.

Of Ethical Truth.

IN spite of all the difficulties thrown in the way of ethical science by the enemies of virtue, and the darkness which hath been drawn over the scene of moral action by many of its mistaken friends, moral truth is still able, by her native energy, to force her way through all the obstruction and obscurity in which she has been involved by art or ignorance.

"The divine Author," says an able moralist and theologian, "hath so wonderfully contrived human nature, that there needs little more in moral matters, than plainly and clearly to represent any instruction to the mind, in order to procure its assent. Whatever be the instruction, whether it affirm this conduct to be virtuous, or that vicious, if the mind be in a natural state, it more than sees,—it feels the truth or falsehood. The appeal is directly made to cer-

tain correspondent sentiments of right and wrong instantly excited by the moral proposition[1]."

However vitiated and corrupted, the moral sense will never be extinguished; and though the middle axioms and subordinate propositions, which are the means of ethical reasoning, may be multiplied by relations and varied by circumstances, and carried to a considerable extent. Ethical conclusions, as they are all ultimately founded on one or other of the universal principles of good and evil evinced by this predominant criterion, which carries its light down the whole of the moral scale, will always be accompanied with a clear and strong conviction.

Mr. Locke has indeed thrown out a conjecture in different parts of his celebrated Essay, that as ethical ideas are what he is pleased to call real essences, and archetypes of the mind's own making, complete and adequate in themselves, as well as mathematical; and as demonstration in his mind

[1] Bp. Hurd, Serm. vol. ii. xi.

was nothing but the perception of the agreement or disagreement of such ideas, by the proof or intervention of other ideas or mediums,—that morality is capable of demonstration as well as mathematics[1].

As parents are often so fond of their children, as frequently to suffer them to embarrass and bring them into difficulties; so has this philosopher been more than once led astray by his favourite ideas.

Had he considered the different origin and nature of these two sciences, he would have been delivered at once from this conjecture, with which he seems so much to have laboured. Mathematical ideas are purely speculative in their origin, and totally abstracted in their nature from every thing in the world. Morality originates in practice, and has its existence grounded in the actual nature of things, as they exist in the moral government of the universe. A circle or a triangle is professedly a creature of the mind, and whether either of them be actually found

[1] See book iii. chap. 11, § 16: and book iv. chap. 3, § 18; chap. 4, § 7; chap. 12, § 8.

in nature, (there are few if any strictly mathematical,) can make no difference in the truths of that speculative science. But whatever number of ethical ideas may be formed of the mind's own invention, unless they have a real and actual existence or correspondence in the moral relations and actions of men, they may be archetypes: yet instead of affording any kind or degree of ethical certainty, all they can produce in our most sanguine expectation, will be a train of demonstrations, which however they may suit the ethical constitution of imaginary agents or inhabitants of another world, can never be adapted to the moral practice of the present inhabitants of our earth.

But this wild and romantic expectation, by which he has outdone the arbitrary inventions and some notions of Aristotle and other sages of antiquity, is not only inconsistent with the origin and nature of morality, but defeated by the whole process of reason in both the sciences. However strong and clear ethical conviction may be in general, it is totally different from mathematical, both in

dent quality, has been inductively established in a general proposition, definition, by reducing particular actions under their general head, will itself terminate the logical process. Or if syllogism must be used, the minor propositions will be particular, so that there can be no demonstration: and to the mortification of disputants, one or at the most a very few syllogisms will be sufficient.

Ethical truth is therefore totally different from mathematical. When logically considered, and placed in a comparative point of view, it bears a nearer resemblance to physical truth, and physical to mathematical[5].

Locke was that bold and adventurous philosopher, who led on by candid impar-

[5] Physics and mathematics have the same first principle, the external senses; and when physical forms are generalized, mathematic can lend its reasoning, and they both terminate in speculative, not practical use. Ethics differ from both, in its first principle, the internal sense; and from mathematics, in the method of reasoning: but in this they agree with physics, that their subjects are individuals. They differ from both in their end, which is practical, not speculative.—Thus ethics and mathematics differ in *toto*.

tiality and reverence for truth, with a strong and liberal mind, left the beaten track of science, and took a new and untrodden path, in which he walked with great honour to himself and much advantage to the learned. To subvert doctrines of philosophy sanctioned by authority, to break through systems of education made venerable by time, and remove habits and prejudices by which the mind has been long enslaved, is a task which has ever been reserved for those few champions of philosophy, who are blessed with superior talent. His Essay produced a useful revolution in the republic of learning, and he may fairly be considered, as the second to Bacon, in improving the pursuit, and promoting the interests of general knowledge. When the navigator of an unknown sea, for the purpose of new discoveries, involves himself in difficulty, and perplexes himself in error, it is what we readily pardon, because it is what we naturally expect. The student and philosopher who embark in the spirit of improvement, in order to correct what was before erroneously adopted or imperfectly

known, will not only commend, but honour the same spirit in others, by which they themselves are corrected and improved.

The opinion however which he entertained in his Essay, of the demonstrability of ethics, he himself doubted of afterwards, and in part retracted in his Familiar Letters[6]. Philosophers, as well as navigators, derive great advantage from being well informed of the works and observations of those, who have gone before them. He would have neither entertained the opinion in the first instance, nor have doubted of it afterwards, had he not been unacquainted with the philosophy of demonstrative and syllogistic reasoning, for want of having studied with attention the Analytics of Aristotle, in which that deep philosophy is so particularly investigated. Nor was he less palpably mistaken in regard both to the principles and reasoning of morality; of which the book of Topics, however defective that part of the

[6] Though by the view of moral ideas, whilst I was considering that subject, I thought I saw that morality might be demonstrably made out; yet whether I am able to make it out is another question.- Locke's Fam. Let. p. 10.

Organon may be, would have sufficiently informed him; by distinguishing those subjects which are capable of probability, from those which admit of demonstration[7]. Above all, the metaphysics of Aristotle, which, however defective, should be attentively studied by every future metaphysician, would have taught him, that not to know what is demonstrable and what is not, constitutes a prominent mark of ignorance[8].

Upon the whole, Locke like many other philosophers, has been more at a loss on moral subjects, than in any other part of learning. Too anxious for the simplicity

[7] The attempt which Mr. Locke has shown, in different parts of his Essay, to make morality demonstrable like mathematics, is a sufficient proof that he was unacquainted with the old logic derived originally from Aristotle. The method by which he hoped to make the attempt succeed, viz. by proving the agreement or disagreement of ethical ideas by the application and mensuration of a third or medium, forms an additional proof, that the logic he espoused was the new one, founded on the first axiom of Euclid, which is more partial and imperfect than the old. And this is indeed strongly apparent in every part of his Essay.

[8] *Ἀξιῶσι δὲ καὶ τοῦτο ἀποδεικνύναι τινὲς δι' ἀπαιδευσίαν, ἔστι γὰρ ἀπαιδευσία τὸ μὴ γινώσκειν τίνων δεῖ ζητεῖν ἀπόδειξιν, καὶ τίνων οὐ δεῖ.*—Aristot. Metaph. lib. iv. c. 4.

and uniformity of this new analysis of the human understanding, he derives all our knowledge originally from one and the same source, that of external sense, to the exclusion of internal sense, the first inlet of all moral truth, which is of equal authority, co-extensive and essential in its use[9]. Hav-

[9] To make way for his new philosophy, he employed the first book of his Essay to prove, that there are no innate principles, either speculative or practical: and, as by principles he means general propositions, most of which are neither known nor assented to without the exercise of many previous judgments, nor often without a great maturity and progress of reasoning, he had no great difficulty in overturning an absurd doctrine, though it had been received for ages. In the second book, he proceeds to trace all ideas, by which he means whatever is the object of thinking, to their original in the external senses alone, as the inlet of all knowledge, both speculative and practical: so that neither are they innate. Still this word is not to be excluded from the philosophy of mind.—That the eye distinguishes black, white, red, yellow, is a faculty innate in that organ, or whence is it derived? But to apprehend love and hatred, good and evil, is not at all in the power of that external organ. No: we feel that it belongs to a faculty within the breast, which is likewise innate; and which we, therefore, call consciousness. These innate faculties are, therefore, different, and independent of each other; from which we, accordingly, receive the different materials of all our knowledge, speculative from the one, and practical from the other: they are, therefore, first principles of knowledge. And, as the one is properly called natural or external sense; the other, by its correspondent analogy, is as properly called moral or internal sense.

ing thus lost one of the eyes of truth in the outset of his journey, which should have been his guide through some of the most abstruse and difficult passages; we cannot be surprised that his moral philosophy should form the glaring and conspicuous defect of this invaluable Essay.

SECT. IV.

The Perfection of Moral Virtue.

THE inferior but more useful parts of ethical wisdom, which are necessary to ensure the peace and existence of society, to direct the conduct of individuals to their necessary well-being, and to enforce the ordinary duties of human life, are impressed on the minds of all men with a clear and obvious conviction. But, when we reflect, that the whole moral law is a transcript of the unsearchable will of the great Governor of the universe, we may easily suspect, that but a small and partial glimpse of this celestial light illumines the human intellect. Though from just observa-

tions on the ways of his providence, and by the due exercise of reason, men may hope to develop some of his less obvious dispensations; yet we may suspend our wonder, if philosophers ancient and modern, who have attempted (and the attempt conducted by humility and discretion does honour to human nature), to look with a more searching eye into the deeper counsels of the Almighty, to scan the secrets of his will, and reduce them to the formalities of system, have been disappointed in their object, and that in subjects of morality, error has frequently assumed the face of truth. They have failed in their researches from an inadequate knowledge of God, as the foundation of morals, and from a misconception of man, as the subject of morals,—above all,—from their ignorance of the doctrine of the fall, and of that inestimable remedy, which has been provided by the gospel for our sins and infirmities.

Though the Deity has never been wanting in the discovery of himself to the meanest of his rational creatures, the sublimer parts of his divine economy are reserved as mys-

teries too exalted for the natural faculties of the highest to investigate, and even for their largest capacities to comprehend[1], however competent to embrace some parts when discovered, or to acquiesce in others[2]. Our great philosopher and reformer of all learning human and divine, has therefore referred reason in respect of the whole of the divine law, moral as well as positive, to revelation, as affording that clear and certain light, on which it can firmly and securely rely[3].

Besides the stupendous mysteries it unveils, which are positive and doctrinal, it delivers a new and more perfect system of moral duties, founded on their true and proper principle, as the directory of our lives and actions—a divine philosophy unconscious of all error, and free from imperfection, and which is carried to that height of purity and sublimity

[1] Nec illud dubitandum est, magnam partem legis moralis sublimiorem esse, quam quo lumen naturæ ascendere possit. —Bacon. De Augm. Scient. lib. ix.

[2] Particeps est anima lucis nonnullæ ad perfectionem intuendam et discernendam legis moralis; quæ tamen lux non prorsus clara sit, sed ejusmodi ut potius vitia quodatenus redarguat, quam de officiis plane informet.—Ibid.

[3] Quare religio, sive mysteria sive mores spectes, pendet de revelatione divina.—Ibid.

of which reason is lost in admiration. No code of ethics, ancient or modern, is so full or precise, none so clear or consistent, none so practical, none so practicable, and above all none so authoritative, as the morality of the eternal gospel. This is the new law, as distinguished from the old, or the law of nature, not only as being more perfect than any other moral system; but as conveyed to man by a new and living way.—Thus the new law constitutes the perfection of moral virtue.

To this code of evangelical ethics the philosopher should look up, as the polar star, whether to direct his studies or regulate his conduct. And here he will receive an admonition from the mouth of One, who was far wiser than all philosophers—"If ye know these things, happy are ye if ye do them[4]"—which instructive benediction, with clear and elegant precision, divides moral science into its two distinct and general parts—the knowledge and the practice[5].

[4] John, xiii. 17.

[5] Partiemur igitur ethicam in doctrinas principales duas; alteram de exemplari sive imagine boni; alteram de regi-

The former, under the luminous precepts of the Gospel, being a work of more obvious and easy execution, and admitting of a more florid and popular display, has been cultivated by moralists and divines with competent success[6]. The latter, which gives to it operation and effect, and which constitutes the life of all morality, requiring a deeper investigation into particulars and a more philosophical research, has been at all times too much neglected[7]. The necessity of this part was felt and acknowledged by the

mine et cultura animi, quam etiam partem georgica animi appellare consuevimus: illa naturam boni describit, hæc regulas de animo ad illam conformando præscribit.—Bacon. De Augm. Scient. lib. vii. cap. 1.

Hanc igitur partem (quando præstantiam ejus in animo recolo) in corpus doctrinæ nondum redactam, non possum non vehementer mirari. Eam igitur, ex more nostro, cum inter desiderata collocemus, aliqua ex parte adumbrabimus. —Ibid. lib. vii. cap. 3.

See this part of morality opened by Lord Bacon.

[6] Proposuerunt nobis exemplaria bella et laculenta atque descriptiones sive imagines accuratas, boni, virtutis, officiorum, felicitatis, tanquam vera objecta, et scopos voluntatis et appetitus humani: verum quomodo quis possit optime ad hos scopos (excellentes sane et bene ab illis positos) collimare; hoc est, quibus rationibus et institutis animus ad illa assequenda subigi et componi possit, aut nihil præcipiunt, aut perfunctorie et minus utiliter.—Ibid. lib. vii. cap. 1.

[7] Delegerunt sibi philosophi in ethica massam quandam

Peripatetic, whose large and comprehensive mind embraced the confines and marked the dependencies of all learning, and who gave a promise to descend to the execution of this interesting work[8]. This promise however does not appear to have been performed, unless very incidentally in his book of rhetoric, in any of those works which have descended to us[9].

This is the philosophy of the human heart, which, by a nice and judicious search inquires into its secret springs and motions, discovering the latent seeds of all those passions and affections which are the issues and elements of moral life. This philosophy

materiæ splendidam et nitentem, in qua potissimum vel ingenii acumen, vel eloquentiæ vigorem venditare possint: quæ vero practicam maxime instruunt, quandoquidem tam belle ornari non possint, maxima ex parte omiserunt.— Ibid.

[8] Δεῖ ἄρα ὡς ἔοικε πρῶτον ὑπὲρ ἀρετῆς εἰπεῖν, τί τέ ἐστι, καὶ ἐκ τίνων γίνεται. οὐδὲν γὰρ ἴσως ὄφελος εἰδέναι μὲν τὴν ἀρετὴν, πῶς δὲ ἂν, καὶ ἐκ τίνων, μὴ ἐπαΐειν. οὐ γὰρ μόνον ὅπως εἰδήσομεν τί ἐστι, σκοπεῖσθαι δεῖ, ἀλλὰ καὶ ἐκ τίνων ἐστὶ, σκέψασθαι. ἅμα γὰρ εἰδῆσαι βουλόμεθα, καὶ αὐτοὶ εἶναι τοιοῦτοι. τοῦτο δὲ οὐ δυνησόμεθα, ἐὰν μὴ εἰδῶμεν καὶ ἐκ τίνων, καὶ πῶς ἄν. ἀναγκαῖον μὲν οὖν εἰδῆσαι τί ἐστιν ἀρετή. οὐ γὰρ ῥᾴδιον εἰδέναι τὸ ἐκ τίνων ἂν, καὶ πῶς ἂν, ἀγνοοῦντα τὸ τί ἐστι, ὥσπερ οὐδ' ἐπὶ τῶν ἐπιστημῶν.— Aristot. Mag. Mor. lib. i. cap. 1.

[9] We have some good ground to believe that he reserved

does not rest in general speculation, but descends to particular experiment and observation. It consults the native bent of every disposition, marks the different tempers and characters of men, whether cast by nature or formed by art, descending to all the propensities of sex, age, country, and condition of life. Thus every disorder of the mind can be traced to its distinct and proper cause with the remedy to be applied, if any remedy can prevail. Thus by a due correction and proper culture of the mind some affections can be promoted, whilst others are suppressed, which may gradually extirpate the seeds of vice and cherish those

this important topic of moral investigation to form the crown and conclusion of his poetics. "Tres de Poeticâ libros conscripsisse Aristotelem memorat Laërtius—tertium (cujus interitum delemus maxime) περὶ καθάρσεως, sive κατορθώσεως disceptasse crediderim, h. e. de Animorum Purgatione a Pravis Affectibus, deque Emendatione Morum. Quem quidem apud veteres, Poeticæ Imitationis probe constitutæ præcipuum ac proprium fuisse finem, nil dubium est. Sed quia, propter multiplices vitiorum formas, complura καθάρσεως illius capita fusiorem tractatum desiderarint, obiter illam sane nec nisi verbo tetigit Philosophus in Poeticis (cap. 8 in fine) ejusque rationum ad hoc opus, tanquam ad latiorem campum fusius ac sigillatim explicandam retulit." —Goulst. in Synop. Aristot. Poet.

See pp. 220, 221 of this volume.

of virtue; as the physician consults alike the constitution of his patient and the cause of the disease, to correct the habit or apply a successful cure.

Still however clear the conviction and captivating the charms of moral truth, men will often resist her evidence and disgrace her beauty. They may embrace and honour virtue in idea, as leading to the greatest good, whilst they reject and dishonour it in practice; for passion, which is of a contrary interest, too often proves an overmatch for reason, and prevails upon the will to cultivate apparent happiness at the shrine of pleasure. And "this is the true cause of all that disorder and inconsistency in the life of man, which the philosopher affects to admire, which the divine laments, and for which the moralist could never find a cure[10]."—But these great defects of natural reason, it hath pleased the Moral Governor to supply by revelation, to which we are now directed to apply for more full and perfect

[10] Warb. Divine Legation.

information on all subjects of morals. For clear and decisive as are the great principles of natural religion and moral obligation, and however successfully human reason may have combated the errors of the atheist and materialist, yet the truths resulting from the natural and unassisted faculties of man, have always been, both in knowledge and practice, most deplorably erroneous and defective. This has arisen from the want of a more perfect knowledge of the will of God, which is the universal law, and from a want of sufficient evidence of those rewards and punishments, which are the sanctions of that law. But as these do not take place in the present life, they formed the strongest proof to natural reason for the expectation of another. Yet even this was not sufficient for popular conviction, till the doctrine " of life and immortality was brought to light by the Gospel."

The power of doing, as well as the opportunity of knowing, we owe especially to Him, who not only gave the instruction, but seconded and illustrated that instruction by

his own example, which he has promised to aid with the Holy Spirit.—Such is the superiority of Christian ethics.

Moral virtue never appeared on earth with that native brightness or with those powerful charms, by which she is enabled at once to convince the understanding and captivate the heart, till brought down from heaven by one, who "knew what is man;" who has displayed her in himself in all perfection, and can invest her with all power; who "opened his mouth in parables," and introduced her with beauty, authority, and effect into this lower world.—Till that halcyon era, human nature had lain buried in "the works of darkness" and "the shadow of death." It was then invited into "light and life" by the call of that prophetic and evangelic voice —"Awake thou that sleepest, and arise from the dead, and Christ shall give thee light[11]."

[11] Isaiah, lxii. 1, and Eph. v. 14.

CHAP. VII.

POETRY.

SECT. I.

The Logic of Poetry.

FROM the ethical, we are led by our general plan to the poetical province, which is subject to the faculty of imagination, or mind employed in producing some inventive or imitative effect[1].

After distinguishing the theoretical division both from the practical and poetical, by observing that the truth of the first originates in its proper subject and terminates in itself, whilst that of the other two originates in the mind of the agent moral or poetical, and respects some further end[2]; Aristotle has

[1] Διάνοια ποιητική. See p 222.
[2] See p. 220, 221.

drawn the line between morality and poetry, according to the different ends they have in view—actions and arts[3]. By arts, he means the elegant, as distinguished from the manual or mechanical arts, which form the various inventions of men reduced to rules and system for the production of the various needs and accommodations of human society.

To place this general distinction in a still fuller point of light, we may observe, that as the object of ethics is the knowledge of the different species of moral good and evil, with a view to the right conduct of life; so the objects of poetry, taken in its greatest latitude

[3] Τῶ δὲ ἐνδεχομένω ἄλλως ἔχειν ἔστι τι καὶ ποιητὸν, καὶ πρακτόν. ἕτερον δὲ ἐστὶ ποίησις, καὶ πρᾶξις· ὥστε καὶ ἡ μετὰ λόγου ἕξις πρακτικὴ, ἕτερόν ἐστι τῆς μετὰ λόγου ποιητικῆς ἕξεως. καὶ οὐδὲ περιέχεται ὑπ' ἀλλήλων. οὔτε γὰρ ἡ πρᾶξις, ποίησις, οὔτε ἡ ποίησις, πρᾶξίς ἐστιν. ἐπεὶ δ' ἡ οἰκοδομικὴ, τέχνη τίς ἐστι, καὶ ὅπερ ἕξις τις μετὰ λόγου ποιητικὴ, καὶ οὐδεμία ὅτε τέχνη ἐστιν, ἥτις οὐ μετὰ λόγου ποιητικὴ ἕξις ἐστὶν, ὅτε τοιαύτη, ἡ ὠ τέχνη, ταὐτὸν ἂν εἴη τέχνη καὶ ἕξις μετὰ λόγου ἀληθοῦς ποιητική. ἔστι δὲ τέχνη πᾶσα περὶ γένεσιν, καὶ τὸ τεχνάζειν, καὶ θεωρεῖν, ὅπως ἂν γένηταί τι τῶν ἐνδεχομένων καὶ εἶναι, καὶ μὴ εἶναι· καὶ ὧν ἡ ἀρχὴ ἐν τῷ ποιοῦντι, ἀλλὰ μὴ ἐν τῷ ποιουμένῳ. ὅτε γὰρ τῶν ἐξ ἀνάγκης ὄντων, ἢ γινομένων, ἡ τέχνη ἐστὶν, ὅτε τῶν κατὰ φύσιν· ἐν αὐτοῖς γὰρ ἔχουσι ταῦτα τὴν ἀρχὴν· ἐπεὶ δὲ ποίησις καὶ πρᾶξις ἕτερον, ἀνάγκη τὴν τέχνην ποιήσεως, ἀλλ' ὐ πράξεως εἶναι. ἡ μὲν δὴ τέχνη, ὥσπερ εἴρηται, ἕξις τις μετὰ λόγου ἀληθοῦς ποιητική ἐστιν. —Ethic. Nicom. lib. vi. cap. 4.

of meaning, are the elegant arts, and their proper end is pleasure, accompanied with useful instruction—" prodesse delectando[4];" the excellence and perfection of which depend on their correspondence to truth, under the conduct of reason[5]. Such is the theory; but it must be admitted that imagination by its native vigour often produces the highest poetical effect, without the art of reasoning. But this arises, as it were, from

[4] Hoc enim maxime videtur interesse inter philosophum et poetam, quod cum utriusque idem sit consilium, alia tamen alii id quod velit consequendi sit ratio. Uterque docentis personam sustinet: quam quidem alter ita optime tueri censetur, si clare doceat, si subtiliter, si enucleate; alter, si jucunde, ornate, suaviter, eleganter. Ille ab affectibus ad rationem unice provocat; hic ita rationem appellat, ut affectus etiam in suas partes studeat pertrahere. Ille ad virtutem et veritatem proxima et compendiaria semita utitur; hic per itinerum flexiones quasdam et diverticula, sed amœniore via, eodem ducit. Illius denique est utramque ita exponere et nudare, ut necessario eas agnoscamus; hujus ita easdem ornare et vestire, ut amemus ultro et amplectamur.—Lowth Poet. Præl. i. p. 4.

[5] Ars est secunda virtus intellectualis practica, quæ definitur, habitus cum recta ratione effectivus.

Objectum ejus sunt omnia illa, ex quibus tanquam materia aliquid potest effici.

Artificis officium in tribus consistit: primò, in speculando: secundò, in fabricando: tertiò, in perficiendo, ut opus producat.—Langb. Ethic. p. 77.

chance, through the force of unassisted genius[6].

In both the theoretical and practical departments, the mind in the production of truth acts and judges within itself; in the arts, it passes to some external operation, by which it produces an effect from which the truth results. The arts are, therefore, the energies of mind, producing effects in different ways and by different means; but no energy of the human mind can actually create. It can only imitate the works of nature material or mental, and by variously joining and combining them together form new images of things, which in nature have no real existence. Hence the faculty by which these energies are exercised is called imagination. This is the proper office of poetic art in general, which consists in various imitations formed by the imagination, that prolific faculty of the mind which gives a kind of

[6] Καὶ τρόπον τινὰ περὶ τὰ αὐτά ἐστιν ἡ τύχη καὶ ἡ τέχνη, καθάπερ καὶ Ἀγάθων φησὶ,

Τέχνη τύχην ἔστερξε, καὶ τύχη τέχνην.

—Aristot. Ethic. Nicom. lib. vi. cap. 4.

second creation to all the works of nature, which generalizes and enlarges their comprehension, heightens their beauty, and improves their charms[7]. This peculiarly pertains to poetic genius, and is termed Invention.

Art is the power in man, improved by habit and exercise, of becoming the cause by various means or instruments of producing some effect, according to a system of precepts formed by judicious experiment. Art in general, divides itself into specific kinds, according to the means or instruments employed, and in every kind, its effect must be either a production whose parts are coexistent, as that of a statue, painting, or poem,

[7] Πολὺ ἐν ταῖς τεχναῖς μιμουμέναις τὴν φύσιν, καὶ τὸ παραλειπομένον ὑπ' αὐτῆς ἀναπληρούσαις.—Simplicius in Aristot. Præd.

Etenim nimium angustis finibus continetur historia, nimium severas habet operis sui leges. Res gestas tradit, eventorum vestigiis insistit; quod contigit, non quod contigisse potuit aut oportuit, narrandum; nec quo documenti opportunitas, vel probabilitatis ratio vocat, sed quo facti necessitas cogit, eundum. Historia res et personas certas et constitutas tractat, infinitas et universales poesis: altera rerum causas incertis conjecturis consectatur; altera evidenter certeque demonstrat: altera fortuito elucentem veritatis imaginem captat; altera simplicem ejus formam intuetur: illa præscriptum iter certa via conficit; hæc liberis naturæ spatiis fruitur: illa demum argumento suo inservit; hæc dominatur.—Lowth Poet. Præl. i. p. 10.

which may be called a *work*; or whose parts exist in succession, as that of music, which may be called an *energy*. Where the effect is a work, its perfections cannot be perceived, till the work is finished; after which it may continue for many ages, when the artist is no more. Where the effect is only an energy, its perfection must be perceived during its execution, and it is only contemporary with the agent or artist[8].

All the elegant arts are imitations, by which they are principally distinguished from the manual, and they differ from each other according to the means or materials which they respectively employ. Marble is generally the material of the statuary, and his instrument the chisel. The painter depends on colours, his instrument is the pencil. The musician employs the different sounds, and instruments of various kinds. The poet embodies his imagination in words, and his instrument is poetical diction[9].

[8] See Harris's Treatise on Art, and on Music, Painting, and Poetry.

[9] See Stewart's Elements of the Philosophy of Mind,

Sect. II.

The Poetical Principle.

THE source from which the imitative arts originally derive their energy is imagination—that internal feeling or sensibility, which by a spontaneous operation recognises a wonderful variety of different sentiments, emotions, passions, and affections, according to all the modes and diversities of pleasure and pain, excited in the mind by the different objects, actions, passions, and events which occur in all the various scenes and circumstances of human life.

This native sensibility is therefore the first principle of poetic art, without which, genius could neither have the power to imitate in order to produce the effect designed, nor would the mind be enabled to recognise that effect, when it was produced.

vol. i. chap. 7; Du Bos on Poetry, Painting, and Music; Knight and Alison on Taste; Burke on the Sublime and Beautiful; Tyrwhitt on Aristotle's Poetic, &c.—*Editor.*

However different from the external and moral senses these internal sensibilities may be, we can observe a general analogy subsisting between them. As the different kinds of good and evil, when distinguished by the moral principle, form all the different classes and varieties of moral action; so the different modes of pleasure and pain, as recognised by the poetical principle, give all their distinctive colours and varieties to the elegant arts. Nay, such is the general consistency and uniformity of things, that as we observe the external senses more perfect and the moral more acute, from their natural formation in some persons, than in others; so we remark this other principle to prevail in different minds with greater or less degrees of delicacy and refinement. And as the former are liable to be injured in their exercise and perverted in their use by habit or accident, and capable of being corrected by an act of reason; so is this poetical sense subject to be corrupted by habit, and corrected by good taste and sound criticism.

The higher degrees of this poetic feeling

are the rare and peculiar gift of nature; when signalized with the highest imitative talent, the happy combination is distinguished by the name of genius; and, when conducted by sound judgment, the result is taste. These endowments are more partially and capriciously bestowed than the other mental faculties. It is necessary there should be many moralists and philosophers, whilst a few poets will suffice for all the purposes of life, provided they are the best.

Sect. III.

Poetical Reasoning.

BUT what has reasoning, it may be asked, to do with the productions of genius and taste? What has a dry and sombrous logic to do in the wild and luxuriant fields of imagination?—An able philosopher and philologist shall give the answer: "Every thing really elegant or sublime in composition is ultimately referable to the principles of sound logic; those principles, when readers little

think of them, have still a latent force, and may be traced, if sought after, even in the politest of writers. By reasoning of this kind, an important union is established, the union between taste and truth. This is that splendid union which produced the classics of pure antiquity; which produced, in times less remote, the classics of modern days; and which those who now write, ought to cultivate with attention, if they wish to survive in the estimation of posterity. Taste is in fact but a species of inferior truth. It is the truth of elegance, of decoration, and of grace; which, as all truth is similar and congenial, coincides as it were spontaneously with the more severe and logical; but which, whenever destitute of that more solid support, resembles some fair but languid body; a body, specious in feature, but deficient in nerve; a body, where we seek in vain for that natural and just perfection, which arises from the pleasing harmony of strength and beauty associated[1]." Though the power of imagination by which the imitative or elegant

[1] Harris's Philosophical Arrangements, p. 458.

arts are produced, called poetic genius, is the gift of nature, and falls to the lot of few, it is governed by general principles and laws which are founded also in nature, and are common to the whole species; and though delicacy of feeling, called taste, which perceives and relishes these beauties, is also in its highest degrees confined to few, it is corrected and improved by reasoning on such general laws or principles. The fine arts, as well as the sciences, are founded on general principles, and it is this which constitutes their truth. The poet who invents, or the critic who judges of these arts, can only carry them to perfection, by conforming to those fundamental principles. Thus the logic of poetry, as well as of philosophy, is of nice and difficult investigation, and they who succeed in it must be possessed of taste and genius as well as of learning. On these subjects both Plato and Aristotle laboured, and the sculptors, and statuaries, and painters of antiquity were doubtless guided by such general rules, though we have not many of such critical works of the ancients. But amongst the moderns we have abundance.—

See Hutcheson on Beauty; Gerard and Burke on Taste; Lord Kaims, Knight, Alison, &c.

Aristotle defines poetic art in general to be "a habit conducted by reason to the production of a true effect[2]; and wherever truth is concerned, reason is concerned; particularly where certain causes, whatever they may be, are employed to produce certain effects, and where certain means are adapted to certain ends. Thus there is no part of learning in which reason and judgment have more various employment, or in which they perform a more difficult and delicate task, than in their application to the imitative arts.

When effects are produced upon the internal feeling by objects or events, as they

[2] *Ἕξις μετὰ λόγου ἀληθοῦς ποιητική. ἔστι δὲ τέχνη πᾶσα περὶ γένεσιν, καὶ τὸ τεχνάζειν, καὶ θεωρεῖν, ὅπως ἂν γένηταί τι τῶν ἐνδεχομένων καὶ εἶναι, καὶ μὴ εἶναι· καὶ ὧν ἡ ἀρχὴ ἐν τῷ ποιοῦντι, ἀλλὰ μὴ ἐν τῷ ποιουμένῳ. ὅτε γὰρ τῶν ἐξ ἀνάγκης ὄντων, ἢ γινομένων, ἡ τέχνη ἐστὶν, ὅτε τῶν κατὰ φύσιν· ἐν αὐτοῖς γὰρ ἔχουσι ταῦτα τὴν ἀρχήν. ἐπεὶ δὲ ποίησις καὶ πρᾶξις ἕτερον, ἀνάγκη τὴν τέχνην ποιήσεως, ἀλλ' οὐ πράξεως εἶναι.—ἡ μὲν οὖν τέχνη, ὥσπερ εἴρηται, ἕξις τις μετὰ λόγου ἀληθοῦς ποιητική ἐστιν· ἡ δ' ἀτεχνία τἐναντίον μετὰ λόγου ψευδοῦς ποιητικὴ ἕξις, περὶ τὸ ἐνδεχόμενον ἄλλως ἔχειν.*—Ethic. Nicom. lib. vi. cap. 4.

occur in the ordinary course of nature, which is the foundation of poetic imitation, we may perhaps be either too deeply interested in them, or too much involved in their contemplation to speculate on their causes. Yet there are causes, and these rational and intelligent, which are uniform and consistent in their operation, as long as the present system of nature and constitution of the human mind continue permanent. In consequence of this inattention, and other concurrent circumstances,—their frequency, their variety, and complexity, and above all their familiarity—they are not perhaps so distinctly to be ascertained, or so easily generalized, as those which are productive of truth in the province of the will or intellect. They have however in nature a permanent existence, and are more or less recognised and responded to by all, though in a higher degree by sensitive and ingenious minds. The poet or artist remarks these causes as they affect his own feelings, and as he observes their operation on others; and thus from sentiment and observation, he is supplied with a large and various stock of poetical

ideas[3]. These are the secondary principles of the poetic art. From this valuable treasury, he unconsciously draws the resources of his genius, to be employed in all the different acts of imitation. This operation, however logical it may appear, he does in fact, though it is generally performed by the silent and almost insensible operation of his mind, without the phlegmatic process of a formal logic,—just as many can reason well without knowing the process of reasoning.

But, however insensibly performed, the reasoning may be clearly analyzed; and from thence the truth produced may be critically ascertained[4].

The truth both of facts and history results

[3] Γίγνεται δ' ἐκ τῆς μνήμης ἐμπειρία τοῖς ἀνθρώποις. αἱ γὰρ πολλαὶ μνῆμαι τοῦ αὐτοῦ πράγματος, μιᾶς ἐμπειρίας δύναμιν ἀποτελοῦσι· καὶ δοκεῖ σχεδὸν ἐπιστήμῃ καὶ τέχνῃ ὅμοιον εἶναι ἡ ἐμπειρία. ἀποβαίνει δ' ἐπιστήμη καὶ τέχνη διὰ τῆς ἐμπειρίας τοῖς ἀνθρώποις. ἡ μὲν γὰρ ἐμπειρία τέχνην ἐποίησεν, ὡς φησι Πῶλος, ὀρθῶς λέγων· ἡ δ' ἀπειρία, τύχην. γίνεται δὲ τέχνη, ὅταν ἐκ πολλῶν τῆς ἐμπειρίας ἐννοημάτων καθόλου μία γένηται περὶ τὸν τῶν ὁμοίων ὑπόληψις.—Aristot. Metaph. lib. i. cap. 1.

[4] See Lowth's Prælect. Academ. v. Omnis natura, immensa hæc rerum universitas, humanæ mentis contemplationi offertur atque objicitur, suppeditatque infinitam notionum varietatem, confusam quandam materiam atque sylvam; imagines, veluti quædam poetica suppellex, colliguntur, &c.

from the apprehension or investigation of particulars, independently of their causes; whereas that of poetry springs from the application of general or universal causes[5]. The first act of reasoning is therefore, from a number of particulars, by collateral judgments of effects produced by them upon the internal feeling, to collect these general causes; and the second, to apply them by the different modes of imitation, in order to produce the poetic effect. Hence poetry is said by Aristotle to be more philosophical than history[6]. Experience forms the foundation, induction is the first act, and a judicious application of generals is the second. And if such general causes of poetic genius be originally well constituted, and afterwards well applied, the poetic truth will display itself in the effect, by a proportionable influence on our sensibility.

Thus poetry stands high in the eye of philosophy. It is founded in abstraction,

[5] Ἡ μὲν ἐμπειρία τῶν καθέκαστά ἐστι γνῶσις, ἡ δὲ τέχνη τῶν καθόλου.—Aristot. Metaph. lib. i. cap. 1.

[6] Διὸ καὶ φιλοσοφώτερον καὶ σπουδαιότερον ποίησις ἱστορίας ἐστίν. Ἡ μὲν γὰρ ποίησις μᾶλλον τὰ καθόλω, ἡ δ' ἱστορία τὰ καθ' ἕκαστον λέγει.—Ibid De Poet. cap. 9.

which is the sublimest operation of the mind, by which its ideas are not only generalized, but corrected and improved by an act of intellect, and rendered more perfect and complete than the archetypes themselves. These are the materials with which the imagination works, and which it moulds into forms of beauty superior to any which appear on the face of nature. And hence it is the imitative arts derive that excellence and superiority in which they glory. As by this power of abstraction the mathematician conceives the idea of a perfect circle or a perfect sphere, and the moralist that of a faultless character, which in nature have no external existence; thus from archetypes which exist in nature, the imitative artist derives ideas so correct and sublime, that they become transcendent, that is, above, though not contrary to natural productions[7].

Particulars and individuals, with all their deformities and imperfections are indeed often applied by imitation to the production of poetical effect; but to arrive at the summit

[7] See Bacon. De Augm. Scient. lib. ii. cap. 13.

of his profession, the artist should employ none but general ideas, with all the advantages which arrangement, disposition, and situation can give them. Thus acted the intelligent statuary, to whose poetical genius the world is indebted for the Venus de Medicis, or the Apollo Belvidere.

But the imitation, by which these poetical ideas are employed in art, according to good taste (which is only another word for correct judgment), is of different kinds, and the just distinction of them forms an act of rational and judicious criticism.

The arts differ according to the different materials and instruments employed, and so does the imitation, which is either direct and proper, or indirect and improper. To discriminate its nature and extent in each of the elegant arts, as well as in the different provinces of the same, is an effort of the most refined philosophy.

In sculpture and in painting, the imitation from the nature of the means and materials they employ is direct and proper, and the resemblance between the statue or picture

and what they represent, is both immediate and obvious. In architecture, the imitation, though of a similar kind, is less direct and proper, and is originally taken from such objects in nature as correspond with its effect. Words are the means or materials of poetry; but words, though as sounds they may sometimes directly resemble sounds, are not the natural representatives of ideas, in which poetry consists; they are only their arbitrary signs, and do not consequently admit of any imitation so proper and direct. That part of poetry, in which the poet personates another, and employs his very words and speeches, is, as far as that personification goes, directly imitative. But with regard to the effects which it produces, poetical imitation is indirect in a greater or less degree. The simplest and least indirect mode of this imitation is that representation of sensible objects which is called poetical description. From this first imitation, poetry advances to a sublimer operation in the representation of mental objects, of the passions, emotions, movements and

sensations of the mind[8]. This it performs in two different ways—either by representing these mental emotions, as they are internally felt, and succeed each other in the mind—or by representing them, as they appear in their sensible and external effects. These less direct modes constitute poetical expression. In all which mental imitations, the

[8] Porro, ut vehementioribus animæ affectibus originem suam debet poesis, ita in affectibus exprimendis vim suam præcipue exerit, et affectus concitando finem suum optime consequitur.

Imitatione constare dicitur poesis; quicquid humana mens cogitatione complectitur, id omne imitatur: res, loca, imagines vel naturæ vel artis, actiones, mores, affectus: et cum omni imitatione magnopere delectatur mens humana, fieri vix potest, quin illam et delectet maxime et percellat ea imitatio, quæ ei suam ipsius imaginem exhibet, omnesque eos impulsus, flexiones, perturbationes, motusque secretos exprimit, quos in se agnoscit sentitque. Commendat imprimis hanc imitationem ipsius rei subtilitas et difficultas: habet magnam admirationem, cum cernimus id effectum dari, quod omnino vix effici posse judicamus. Cæterarum rerum descriptiones accuratas esse et naturæ congruere, memoriæ subsidio ac veluti per medium quoddam, mens tardius intelligit: cum exprimitur affectus aliquis, rem ipsam quasi nude intuetur; ipsa per se conscia est et sui et suorum motuum, nec rem perspicit solum, sed et vel idem vel simile quiddam statim patitur. Hinc fit, quod ea sublimitatis species, quæ ex vehementi affectuum impulsu eorumque imitatione oritur, apud animum humanum multo maximam vim habet: quicquid ei extrinsecus exhibetur, utcunque

effect is often extended and enlarged by association of ideas, and wonderfully heightened by sympathy, that lovely and sublime affection, which gives poetry such a powerful ascendant over the heart of man.

Another mode of poetical imitation is that of fiction, which represents facts, characters, actions, manners, and events, in feigned and general story, as history does in real and particular narrative[9], by adding to the fiction, representation. These more indirect imitations constitute epic and dramatic poetry, into which every other species is introduced.

And to these is to be added another kind of imitation, still more indirect, which conveys the thoughts and ideas of the mind through

grande et magnificum, minus eum, ut par est, commovet, quam quod intus percipit, cujus magnitudinem et impetum et vehementiam, ipse apud se persentit.

Utque imitatio affectuum poeseos perfectissimum est opus, ita per eorundem concitationem maxime ad finem suum et effectum perducitur.—Lowth Poet. Præl. xvii.

[9] Ἡ μὲν γὰρ ποίησις μᾶλλον τὰ καθόλυ, ἡ δ' ἱστορία τὰ καθ' ἕκαστον λέγει.—Ἔστι δὲ καθόλυ μὲν, τῷ ποίῳ τὰ ποῖ' ἅττα συμβαίνει λέγειν, ἢ πράττειν κατὰ τὸ εἰκὸς, ἢ τὸ ἀναγκαῖον, ᾧ στοχάζεται ἡ ποίησις, ὀνόματα ἐπιτιθεμένη· τὰ δὲ καθ' ἕκαστον, τί Ἀλκιβιάδης ἔπραξεν, ἢ τί ἔπαθεν.—Aristot. Poet. cap. 9.

the external objects of sense. Such is parabolical and fabulous poetry[10].

But although the imitations of poetry be less direct and proper than those of the other arts, for this very reason, it surpasses them greatly in its extent and operation on the mind. Poetry, which from this superiority has appropriated the general name, is the mirror of all truth, by which every part of nature, corporeal and mental, is reflected and improved. It is physics, facts, actions, and history feigned at pleasure[11], and represented, by the different modes of its imitation, in a language exalted above the common use, and which is peculiarly belonging to itself[12]. And thus, whilst it exhibits a beautiful portrait of every species of truth, it softens the labour which attends their acquisition,

[10] At poesis parabolica, inter reliquas eminet, et tanquam res sacra videtur et augusta; cum præsertim religio ipsa ejus opera plerunque utatur, et per eam commercia divinorum cum humanis exerceat.—Bacon. De Augm. Scient. lib. ii. cap. 13.

[11] Cum nihil aliud sit, quam historiæ imitatio ad placitum. —Bacon. De Augm. Scient. lib. ii. cap. 13.

[12] Poesis est genus doctrinæ verbis plerumque adstrictum, rebus solutum et licentiosum.—Ibid.

Ea est omnis poeseos indoles ut a vulgari sermonis usu

by affording the mind that refined and elegant recreation, which the most rigid philosopher need not blush to enjoy[13].

Thus poetry, by its imitative and energetic power, presents us with a new creation, every where representative of the old world, springing out of imagination, that sublime inventive faculty which is a compound of will and memory, the former exercising a kind of plastic and creative power on the treasures of the latter. Though imagination can add nothing to the original stock of ideas, with which the mind is furnished by the external and internal senses, or change any of the materials of the old creation; it assumes an absolute command and authority over them, to join, to combine, to mix, to vary, to

maxime abhorreat, atque verborum non solum delectu, sed et constructione proprium quoddam et exquisitius dicendi genus affectet.—Lowth Poet. Præl. iv.

[13] Equidem præclare nobis consuluisse videtur natura, quæ cum nos ad veri cognitionem longe a nobis remotam, nec sine magnis laboribus assequendam, vehementer impelleret, hæc nobis invenit et paravit oblectamenta, ut haberet mens nostra, quo defatigata identidem confugeret; ubi conquiescere, omnemque illum languorem et molestiam deponeret.—Lowth Poet. Præl. I.

compound, or dispose them, in every different form and representation of description, fiction, personification, vision, or allusion. And if the wild and inventive genius of our own countryman were not instructed in the cold philosophy of poetry, his warm and inventive fancy was susceptible of its finest influence. From the following animated picture, which he has given of his profession, one might suppose that he was not entirely unacquainted with the *rationale* of the art:

> The poet's eye in a fine frenzy rolling,
> Doth glance from heav'n to earth, from earth to heav'n;
> And as imagination bodies forth
> The forms of things unknown, the poet's pen
> Turns them to shape, and gives to airy nothing,
> A local habitation and a name[14].

In the higher departments of the muse, poetry feigns actions and events succeeding each other in due order, giving them the life and animation of persons of the first distinction, with the consistencies of time and place, and every other circumstance of probable history, consulting the gratification of all the

[14] Shakspeare's Midsum. Night's Dream, Act i. Sc. 1.

sublimer sentiments and affections of the mind, and perfecting the whole plan into the resemblance of a more complete, more beautiful, more engaging, and more instructive truth[15]. Such is the power of imitation, the universal instrument which genius employs, though generally unconsciously, in producing those marvellous effects, which from the days of Homer to the present times have instructed and delighted mankind.

In the choice and adoption of the means

[15] Ea a fundamento prorsus nobili excitata videtur, quod ad dignitatem humanæ naturæ imprimis spectat. Cum enim mundus sensibilis sit animâ rationali dignitate inferior, videtur poesis hæc humanæ naturæ largiri, quæ historia denegat; atque animo umbris rerum utcunque satisfacere, cum solida haberi non possint. Si quis enim rem acutius introspiciat, firmum ex poesi sumitur argumentum, magnitudinem rerum magis illustrem, ordinem magis perfectum, et varietatem magis pulchram, animæ humanæ complacere, quam in natura ipsa post lapsum, reperire ullo modo possit. Quapropter, cum res gestæ et eventus, qui veræ historiæ subjiciuntur, non sint ejus amplitudinis, in qua anima humana sibi satisfaciat, præsto est Poesis, quæ facta magis heroica confingat. Cum historia vera successus rerum, minime pro meritis virtutum et scelerum, narret; corrigit eam poesis, et exitus et fortunas, secundum merita et ex lege Nemeseos, exhibet. Cum historia vera, obvia rerum satietate et similitudine, animæ humanæ fastidio sit; reficit eam poesis inexpectata, et varia, et vicissitudinum plena canens.—Bacon. De Augm. Scient. lib. ii. cap. 13.

requisite to the accomplishment of so complete an end, in their poetical execution, and in conducting the whole to the best effect, the judgment performs a very delicate and difficult task. Fancy may be luxuriant, and genius prolific; but reason, however silently and imperceptibly she may work, has to prepare and correct the natural fertility of the soil, and to assist in nourishing the production, till it ripens into its full maturity. It has to adjust the propriety of the inventions, to rectify the falsities of taste, to arrange the order and succession of the parts, and unite them into one consistent whole: an exercise of philosophy which forms a very deep and recondite branch of learning, pre-eminently called criticism, or the philosophy of judgment.

This part of philosophy did not escape the inquisitive attention of Aristotle, whose strong and comprehensive mind was not only the repository of all the learning of his age, but the author and improver of many of its departments. His penetrating eye could not view those admirable models of poetic art,

exhibited in the drama of Sophocles, or in the epos of Homer, and contemplate the effects which they produced on the mind and the different affections of pleasure and pain, without inquiring into the causes which conspired, in such exact and admirable combination to their production. In this arduous investigation, he analyzed these compositions, and reduced them to their simplest parts and principles. By this method he discovered their artifice and machinery, how every part was formed, how one operated on another, and how they all co-operated in the formation of a perfect whole. Thus the inventive and poetical genius of Homer and Sophocles or Euripides produced the most admirable specimens of the art, whilst the analytic and philosophical genius of Aristotle discovered the logic or *rationale* of the originals.

In this philosophical analysis, all the parts and connexions, the beauties and proprieties, the unities and consistencies, which are assembled, combined, and executed by the exertion of the sublimest and most judicious imagination, are explained in the clearest and most didactic manner, and with so much

soundness and discrimination of judgment, that the criticism itself became a model on which to form the plan of the future poet, as well as the standard to direct the decision of the future critic.

But though many important advantages have been derived both to the works of the poet and the judgment of the critic, from this incomparable production of Aristotle; yet, in many instances, the genius of the one has been checked in its native vigour, and the judgment of the other warped and contracted, by an application too severe and unqualified of what at best can form only a partial rule.—The materials of nature are extensive as the universe.

Genius is the produce of every soil, the growth of every age and country. In its boundless application to poetry, it catches facts, characters, and manners as they rise; and by a just and lively imitation, produces the effect upon the minds of those who were witnesses of the scenes, and who are best qualified to recognise and respond to its poetical creation. If these facts, characters, and manners, which form the genuine re-

sources of the muse, are known to change with the change of time and place; if from the temperature of climate, the influence of politics, the prevalence of civil and religious opinions, or the dominion of fashion; if from some causes which we know, and far more we do not know, the scene of human life and manners be shifted with every age and country—the poetical model, formed by Aristotle from the works of Sophocles and Homer, however perfect as far as it extends, is constructed on a scale too narrow and confined to form the universal law of poetical composition. However adapted to the manners and sentiments of ancient Greece, however admirable in itself, as holding out a picture of the dignity and simplicity of the classic ages, and though incomparable as a specimen of the most refined and polished taste,—the Poetics of Aristotle, or the Art of Poetry of Horace, should be considered, only as a general and imperfect guide, to be applied with much caution and reserve, and with particular attention to the changes in the circumstances of time and place.

Poetical imitations are always the most

perfect, the most proper, the most effective, when they are taken directly from things that are; when the poet's feelings are themselves excited, his genius enlivened, and his imagination warmed by present objects whatever they may be: and not when they are imitations of things that were, as presented to the feelings, and represented by the imagination of Sophocles or Homer, and copied from their works. This is but the imitation of an imitation, and can at best be only like an excellent copy of a Titian or Vandyck. However perfect the model, there is a coldness and languor inseparable from this secondary imitation, which must ever repress the native fire of the poet, and sink him into a disgraceful inferiority.

True poetic genius in these later ages has never glowed with such force and brilliancy, as in the works of Spenser and Shakspeare, Dante and Ariosto, who were unacquainted with the ancient rules; or as in that of Milton, whose immortal poem did not admit of their application. And could another Aristotle arise to analyze the works of these more modern bards, we should receive a new

code of poetical laws, superior in some respects, however inferior in others.

Thus instead of improving the judgment and correcting the taste, too implicit a devotion for the critique of Aristotle, and too partial a reverence for the specimens of antiquity, have tended to cramp the poet's genius, to pervert the judgment of the critic, and abridge the privilege of the art.

From the same narrow prejudice and superstitious veneration of antiquity, architecture has run the same or similar fortune. The Grecian orders are most inimitable in their proportions, unequalled in their ornaments, and unparalleled in the richness and beauty of their sculpture. The models of the ancient temples are among the most splendid monuments of human genius. But these orders, however excellent, are not adapted to all countries, to all climates, or to all materials; nor are these models accommodated to many of the uses and purposes of modern life. Whilst we reverence these remains of classical antiquity, we should not so far suffer ourselves to be blinded by that reverence, as to neglect and disregard that

other species of architecture, of which we have many admirable specimens peculiar to our country, which, however inferior in its materials and ornaments, is more various and extensive in its expression, more adapted to the climate, and better calculated for many purposes of the country in which we live[16].

Thus the regions of imagination, however fertile and luxuriant, require the aid of reason to improve their various soils, and to cultivate them to the best advantage, that the fruits which they severally produce, may neither be so exuberant in their growth, as never to reach perfection, nor so hasty in their progress, as to ripen prematurely; but that duly and regularly matured by their native strength and vigour, assisted by the friendly visitation of the elements, they may become nutritious to the moral constitution, as well as pleasant and delicious to the taste.

[16] One loss, out of many, which has been sustained by the death of Mr. Thomas Warton, is that of his intended History of Gothic Architecture, which is much to be regretted, as a great desideratum.

Sect. IV.

Poetical Truth.

IF we compare the truth resulting from poetical imitation, with the several kinds which have been the subject of the preceding pages, we shall find, that in several of its departments, and those the most sublime and perfect, as belonging to the highest genius under the guidance of the purest taste and judgment, it must be acknowledged to be altogether fictitious. Poets enjoy the privilege, with the consent of their father-critic, to be egregious falsifiers[1]: and their images are called, by one who was himself the first of poets, "airy nothings." But, however airy and unsubstantial the art may be, considered in its inventions, fictions, and allusions, it may be true in its imitations of nature; and

[1] Κατὰ τὴν παροιμίαν, πολλὰ ψεύδονται ἀοιδοί.—Aristot. Metaph. lib. i. cap. 2.

if the imitation be true or the resemblance which it exhibits just, it will produce a certain and uniform *effect* (it can scarce be called conviction) on the human mind. It is this effect which constitutes poetical truth, and this truth, in all its variety, and which forms the most delicious food, and has been ever found the most useful and agreeable medium through which many other kinds of truth may be insinuated and conveyed.

When descriptive poetry exhibits merely a picture of external objects, or internal emotions, either as immediately felt, or in their sensible effects, it is a representation of things as they really are. It is then but a short remove from historical truth, and we know that historians frequently enliven the narrative of real facts, with all the embellishment of poetical description. But poetry, as an art, neglects in its higher exercise the reality of such representations; considering the effect they are able to produce on the imagination, rather than the conviction they work on the understanding. It therefore exhibits things as they might be, not as they really are, and evermore delights

in fiction[2]. It feigns characters, circumstances, situations, and actions, and often heightens the fiction by personification, and improves the whole picture by exhibiting it under the veil of a wild and metaphorical diction. If the characters be such as are capable of a real existence, if the sentiments would naturally arise in the circumstances described, if the actions are those which might be expected in real life, and the language attributed to the characters such as if they had really existed; the whole may be a grand and interesting fiction and illusion on the understanding, but such an illusion as the mind willingly indulges for the sake of the *effect*. In this effect, consists that poetical truth in which Apollo and the Muses delight to converse.

Poetry is therefore, first, descriptive, or a picturesque imitation of material and mental objects. Secondly, narrative or epic, which presents an imitation of facts and actions in

[2] Οὐ τὸ τὰ γινόμενα λέγειν, τοῦτο ποιητοῦ ἔργον ἐστὶν, ἀλλ' οἷα ἂν γένοιτο, καὶ τὰ δυνατὰ κατὰ τὸ εἰκὸς, ἢ τὸ ἀναγκαῖον.—Aristot. De Poet. cap. ix.

historical succession. Thirdly, dramatic, which gives to portions of feigned history the addition of personal representation; and, fourthly, parabolical, which couches mental objects under types, emblems, fables, and actions[3]; and which, through the most elegant vehicle of instruction, conveys theoretic, moral, or theologic truth[4].

Mind, the universal cause of all things, is the energy of God, exerted in the creation of the various and stupendous works material and mental, which replenish and adorn the universe. Mind, operating in poetic art, and imitating in its sublimer acts all external

[3] Partitio poeseos verissima, atque maxime ex proprietate, præter illas divisiones, quæ sunt ei cum historia communes (sunt enim ficta chronica, vitæ fictæ, fictæ etiam relationes), ea est, ut sit aut narrativa, aut dramatica, aut parabolica. Narrativa prorsus historiam imitatur, ut fere fallat, nisi quod res extollat sæpius supra fidem. Dramatica est veluti historia spectabilis; nam constituit imaginem rerum tanquam præsentium; historia autem tanquam præteritarum. Parabolica vero est historia cum typo, quæ intellectualia deducit ad sensum.—Bacon. De Augm. lib. ii. cap. 13.

[4] Alter est usus poeseos parabolicæ, priori quasi contrarius, qui facit (ut diximus) ad involucrum; earum nempe rerum, quarum dignitas tanquam velo quodam discreta esse mereatur: hoc est, cum occulta et mysteria religionis, politicæ, et philosophiæ, fabulis et parabolis vestiuntur.—Ibid. lib. ii. cap. 13.

productions and mental operations, and giving them a more general, more perfect, and instructive form, is the energy of man. Whilst other parts of learning are usefully and honourably employed in exploring the works, or searching into the will of God, it is the high privilege of poetry to emulate his acts, and thus to raise and sublime the affections towards the imitation of his goodness, the adoration of his wisdom, and the admiration of his power. It is the end of poetry, not merely to delight and entertain the imagination, but to enlarge the understanding, to raise the genius, and purify the heart. Thus it may be truly said, as its votaries have often supposed, to partake in some measure of divinity. It raises the mind above its natural condition, by accommodating its images to its desires; and not like philosophy and history, by submitting the mind to the present fallen nature of things[5].

[5] Adeo ut poesis, non solum ad delectationem, sed etiam ad animi magnitudinem, et ad mores conferat. Quare et merito etiam divinitatis cujuspiam particeps videri possit; quia animum erigit et in sublime rapit; rerum simulacra ad animi desideria accommodando, non animum rebus (quod ratio facit, et historia) submittendo.—Ibid. lib. ii. cap. 13.

Should we pursue this subject, I might enlarge upon the various and interesting effects of poetry or poetic truth, and relieve the dryness which is inseparable from philosophic discussion, by a more pleasing and popular mode of writing. But the plan which I have proposed calls my attention to other topics.—" Let none, however, from the vicious and profane example of some, who pervert the best of things to the worst of uses, vilify and degrade this most honourable art. Let none despise as futile, condemn as insignificant, or impeach as impious, a faculty bestowed on man for the most sublime and sacred purposes, consecrated to the most august offices of religion, and sanctioned by the authority and example of God himself[6].

[6] Desinant itaque ex quorundam hominum vitio, qui rebus optimis pessime abutuntur, honestissimæ facultati invidiam conflare: desinant eam artem, ut in se levem futilemque contemnere, ut profanam atque etiam impiam criminari, quàm in sanctimos usus Dei ipsius munere hominibus concessam fuisse videmus, Deique ipsius auctoritate atque exemplo augustissimis ministeriis consecratam. — Lowth. Poet. Præl. ii.

CHAP. VIII.

MUSIC.

ALTHOUGH much criticism and philosophy have been employed on this most elegant and fascinating art since the age of Aristotle, yet are these criticisms, for the most part, unphilosophic and superficial. The *rationale* of music seems to be more complicated and involved in mystery, and more difficult to be analysed[1], than that of almost any other art or science.

Music is akin to poetry, and has accordingly been its faithful and constant companion in every age and country. It is a compound of motion and sound, and so far as the mensuration and proportion of the former is concerned in producing its effect,

[1] Οὔτε γὰρ τίνα ἔχει δύναμιν ῥᾴδιον περὶ αὐτῆς διελεῖν, ὅτι τίνος δεῖ χάριν μετέχειν αὐτῆς.—Aristot. De Repub. lib. viii. cap. 5.

it may be considered a geometrical science, and allied to mechanics and astronomy[2]. Its melodies and harmonies may thus, indeed, be scientifically measured and constructed by mathematics; yet all the mathematics in the world will never make a good musician. Besides the mensuration of motion, which is called *time*, all the varieties of sound or different tones, with their simple successions, called *melody*, and their complex successions, called *harmony*, constitute the other part of the compound of which music consists. But these, however they may be measured or regulated by time or motion, are in themselves essentially distinct from both.

Music, however compounded, terminates, therefore, neither in speculation or action, but in effect and expression. Like poetry and all other elegant arts, it derives its energy from the principle of imitation[3], and represents the different passions and emo-

[2] Σχεδὸν δὲ συνώνυμοί εἰσι τούτων τῶν ἐπιστημῶν ἔνιαι, οἷον, ἀστρολογία, ἥ τε μαθηματικὴ, καὶ ἡ ναυτικὴ, καὶ ἁρμονικὴ, ἥ τε μαθηματικὴ, καὶ ἡ κατὰ τὴν ἀκοήν.—Ibid. Analyt. Post. lib. i. cap. 13.

[3] See De Poet. cap. i.

tions of mind[4], by means of its rythms and the order and succession of its sounds[5]. It may be considered as a species of inarticulate poetry, addressed to the ear, and operating by tones and vibrations on our passions and affections. Hence the term *musical expression*.

As its organ is the ear, the means and materials of its imitation must essentially differ from those of figure or colour. It differs more from sculpture, painting, or architecture, both in its composition and effect, than either of these from each other. Though the means or materials of music be confined to sound and motion, yet so various and indefinite are the degrees and varieties of their combination, that the capabilities of musical imitation are inexhaustible, and its effect on the mind indefinite and ever varying.

And this it is, I apprehend, which causes the difficulty of philosophically analysing

[4] Ἔστι δ' ὁμοιώματα μάλιστα παρὰ τὰς ἀληθινὰς φύσεις ἐν τοῖς ῥυθμοῖς καὶ τοῖς μέλεσιν ὀργῆς καὶ πραότητος· ἔτι δ' ἀνδρίας καὶ σωφροσύνης, καὶ πάντων τῶν ἐναντίων τούτοις, καὶ τῶν ἄλλων ἠθικῶν.—Ibid. De Repub. lib. viii. cap. 5.

See the latter end of the chapter—Ἐκ μὴν ὧν τούτων φανερὸν, ὅτι δύναται ποιόν τι τὸ τῆς ψυχῆς ἦθος ἡ μουσικὴ παρασκευάζειν.

[5] Ἐν δὲ τοῖς ῥυθμοῖς. καὶ ἐν τῇ τῶν φθογγῶν ταξει.—Aristot. De Musicâ, sect. xix. prob. 27.

musical composition. The musical composer, who is possessed of native sensibility, discovers involuntarily what strain of sound and motion will affect that sensibility, and varies his notes accordingly, and will always excel in that particular style which accords with the bent of his genius and specific sensibility. The value of his compositions must depend on the dignity of the style, and the effect it is calculated to produce, combined with the excellence of the execution. But one great injury to which this fascinating art is exposed, arises from the performers, whether vocal or instrumental, overacting their parts in the execution, by which the effect on the passions and affections is much diminished and obstructed.

Music claims the privilege of being at once a science and an art. It is a science, as being founded on the principles of geometrical proportion—and it is then styled Harmonics. As an art, it is allied to poetry, and its effects on the passions and affections are extremely similar. The fascinations of its art are derived from the powers of imagination, corrected by good taste and judgment.

Music is therefore a compound of sound

and motion. Sounds are either voices or tones, and these divide music into vocal and instrumental. Vocal sounds, as the elements of music, are simple and compound, long or short, articulate or inarticulate. Tones and instrumental sounds admit of the same division, but are never articulate. Music is divided generally into melody and harmony. The former consists of single sounds following each other in regular succession, called modulation. When they rise to combinations, well proportioned, they constitute harmony. Motion in music admits of as many divisions and subdivisions as sound.

The effect of music on the human frame is truly wonderful, and in its philosophical analysis, it should, I think, be considered as a compound of art and science; which complex view might probably facilitate the knowledge of the *rationale* of its powers and mode of operation, and help us to ascertain with precision the specific nature of its imitation, which varies in every art, being more immediate or distant, more direct or indirect, according to the different means which they respectively employ.

With these few hints to the student of music, should he think them worth his observation, we conclude this general allusion to this most fascinating art and curious science[6].

[6] Consult Du Bos on Poetry, Painting, and Music; Harris's Three Treatises; Avison on Musical Expression, &c. &c. For the theory of harmonics, the reader is referred to Dr. Smith, Rameau, Burney's History of Music, Rousseau's Musical Dictionary, the article Music in the Encyclopædia Britannica, &c. For the ancients, he may consult the collection Antiquæ Musicæ Scriptores, published by Meibomius, 1652; and Ptolemy's Harmonics, edited by Wallis, Oxon, 1682.—*Editor.*

RECAPITULATION.

IN this volume, I have attempted to draw a compendious analytical Chart or graphical delineation of Mathematics, Physics, Metaphysics, Facts, History, Morality, Poetry, and Music, according to the relation which they respectively bear to the three general faculties of the human mind,—the Intellect, the Will, and the Imagination. From their connexion with each other, and the synopsis of the whole, we have endeavoured to form a kind of general scale, by which the truth of each may be compared and graduated.

As a ray of the sun, that sublime and significant emblem of truth, passing through a prism, is divided into a beautiful variety of shades and colours; so that ray of truth, which is shed down from heaven on the human mind, as it passes through these different channels of knowledge, differs in

strength and degree, exhibiting an illustrious specimen of that beauty and variety of appearance and effect, which, in every part of creation, distinguish the works of God.

Upon this philosophical view of man, a question may arise in the minds of some—Why does that truth, which in the Divine Mind is equally clear in all its parts, and which is given by his omniscient will for the guide and conduct of life, shine upon the human, with such different degrees of force?—

> Ask of thy mother earth, why oaks are made
> Taller and stronger than the weeds they shade?
> Or ask of yonder argent fields above,
> Why Jove's satellites are less than Jove?—
>
> POPE'S Essay on Man.

As all things were created in the purest goodness, they are appointed in the profoundest wisdom. Whilst the bulk and majesty of the oak may command our immediate notice and admiration, the humble vegetable under its shade, though difficult to be found and despicable to the eye, may possess those superior qualities, which, for food or medicine, may contribute more

essentially to the use and happiness of man. It is enough for the benefit of the receiver or the honour of the giver, that truth is dispensed in that exact proportion, and with those especial qualifications, which are best adapted to our use and happiness; and though man, as he travels along his sublunary way, may be permitted only to see some of its sublimer parts, as "through a glass darkly,"—yet if he labours to find it out with diligence and desire, he may still lift up his voice in praise—"Thy truth, most mighty Lord, is on every side!"

In the execution of the plan proposed, we now proceed to the logical delineation of theologic truth, which will form the subject of the ensuing volume.

APPENDIX.

APPENDIX I.

THE ARISTOTELIAN LOGIC[1].

IT has been already observed, that the two highest species of poetry, the dramatic and the epic, particularly the former, were analysed by Aristotle in his treatise of Poetics, in a minute and philosophical investigation of their parts and principles, and the causes of their effect on the imagination. This treatise and that of his Rhetoric are generally and justly allowed to be two of the ablest works of that deep philosopher; which, by the originality and critical acumen they discover, have conferred upon him the title of the father of critics, as Homer is called the father of poets, and Demosthenes the prince of orators.

Those who have best understood and most ardently admired the works of the Peripatetic, seem unanimously to agree, that these two admirable works of criticism could not have originated abstractedly, that they could not spring from any

[1] On this general subject, consult Dugald Stewart's Elements, vol. ii. chap. 3, 4; Reid's Analysis of Aristotle's Logic; Brown's Philosophy of the Human Mind, lecture 50, &c.; Campbell's Philosophy of Rhetoric, &c. &c.—*Editor.*

effort of his own judgment or invention previously exercised, independently of the productions of the orator or poet; but that the one is the analysis or dissection of the drama of Sophocles or Euripides, and of the immortal and unrivalled Iliad of Homer, whilst the other is the analysis or dissection of the orations of Demosthenes and the most celebrated Grecian orators. They accordingly both consist of a philosophical investigation of the causes which conspire to the various and wonderful effects, produced on the mind and feelings, by these splendid monuments of genius and invention.

To suppose *that* to have been originally and necessarily produced by art and philosophy, on which, when produced, art and philosophy have been successfully employed, is an error in the history of learning, which has been too commonly entertained. These admirable productions first sprang from the spontaneous operation of the genius, or from the native strength of the judgment of the orator or the poet. From this analysis, art and philosophy extracted rules to direct the genius of future poets or orators, and to assist the judgment of future critics. "Aristotle, we know," says the author of Philosophical Inquiries, "did not form Homer, Sophocles, and Euripides; it was rather Homer, Sophocles, and Euripides which formed Aristotle."[2] And this

[2] Harris's Phil. Inq. p. 231.

strenuous admirer and interpreter of the philosopher who first exhibited the mechanism and construction of poetry and oratory, has with much ingenuity developed the mechanism and construction of his original criticism. "As the great events of nature led mankind to admiration, so curiosity to learn the cause whence such events should rise, was that, which by due degrees formed natural philosophy. What happened in the natural world, happened also in the literary. Exquisite productions, both in prose and verse, induced men here likewise to seek the cause; and such inquiries, often repeated, gave birth to philology. Those who can imagine, that the rules of writing were first established, and that men wrote in conformity to them, as they make conserves and comfits by receipt books, know nothing of criticism, either as to its origin or progress. The truth is, they were authors who made the first good critics, and not critics who made good authors, however writers may have profited by critical precepts. Ancient Greece, in its happier days, was the seat of liberty, of sciences, and of arts. In this fair region, fertile of wit, the epic writers came first; then the lyric, then the tragic; and lastly the historians, the comic writers, and the orators, each in their turns delighting whole multitudes, and commanding the attention and admiration of all. Now, when wise and thinking men, the subtle investigators of principles and causes, observed the wonderful effect of these works upon the

human mind, they were prompted to inquire, whence this should proceed; for that it should happen merely by chance, they could not well believe. Here therefore we have the rise and origin of criticism, which, in its beginning, was a deep and philosophical search into the primary laws and elements of good writing, as far as they could be collected from the most approved performances. Much of this kind may be found in the different parts of Plato; but Aristotle his disciple, who may be called the systematizer of his master's doctrines, has in his two treatises of Poetry and Rhetoric, with such wonderful penetration, developed every part of the subject, that he may be justly called the father of criticism, both from the age when he lived, and from his truly transcendent genius. The criticism which this capital writer taught, has so intimate a correspondence with philosophy, that we can call it by no other name than that of Philosophical criticism[3]."

This acute reasoning of our late philologist, by which he so philosophically accounts for the origin of the Poetics and Rhetoric of the Stagirite, I would now extend to his books of Interpretation, and the Analytics. We assert they contain a deep and philosophical search into the primary laws and elements of demonstrative reasoning, as far as they could be collected from the most approved performances in his time. That this is in

[3] Harris's Phil. Inq. p. 2—9.

fact the case, no one who is sufficiently acquainted with these works will, I think, deny. In support however of this position, I shall avail myself of the opinion and authority of another of the Peripatetic's ardent admirers, who has informed us, "that the discovery of the nature of truth does not seem to have been made, at least by the philosophers of Greece, till Aristotle wrote his book of Analytics, the professed design of which is to show what science and demonstrative truth is[4]."

This is the inference then, which I have to draw from the comparative view of the works of Aristotle—that as the Poetics contain the philosophy or *rationale* of two species of poetry, or the Rhetoric the philosophy or *rationale* of oratory, and record the laws and rules by which the most successful productions in both these departments were constructed; so may we conclude, by strict analogy, that the Analytics of the same author is the philosophy or *rationale* of demonstration, investigating its principles, and delivering the laws and rules by which it has been conducted, or may be advantageously continued. And thus, if what is advanced in these lectures in reference to the kinds of truth, their different principles, reasoning, and constitution, be at all well founded, this part of his Organon is no more calculated to supply the rule or art, by which reason can push on her in-

[4] Anc. Metaph. vol. i. p. 374.

quiries in physics, ethics, or any other branch of learning from which demonstration is excluded, than his Rhetoric is the rule or art of writing a poem, or his Poetic the rule or art of composing an oration; or than the plan of a bridge can exhibit the rule or art of building a church, or any other study in nature become the rule or art of producing an effect to which it does not properly belong.

Syllogism forms professedly the whole scope and burden of this celebrated work; which, as may be expected from this view of its origin, is peculiarly adapted, if not almost exclusively confined, to that species of reasoning which is properly demonstrative[5]. Though the Prior Analytics affect to treat

[5] See chap. iv. sect. 2, and chap. vii. sect. 2.

In his First Analytics, where he delivers the doctrine of syllogism in general, Aristotle divides it into three classes, which he calls figures, according to the predication and subjection of the middle term. Each of these figures he subdivides into a certain number of legitimate modes, according to the quantity and quality of the premises. And this forms the whole plan of his logic. The first of these figures is however not only the first, but the most important, and involves all the value of the other two; for all their legitimate modes, as well as those of a fourth, invented afterwards by Galen, are reducible to some of the modes of the first figure, and derive their proof and authority from that reduction. See Analyt. Prior. cap. 23, 24. Now, the reasoning in the first figure is absolutely demonstrative, and Aristotle observes, that all mathematical reasoning is reducible to syllogisms of the first figure. Τῶν δὲ σχημάτων ἐπιστημονικὸν μάλιστα τὸ πρῶτόν ἐστιν. Αἵ τε γὰρ μαθηματικαὶ τῶν ἐπιστημῶν διὰ τούτου

of probable and sophistical, as well as of necessary or demonstrative syllogisms; it is the last only whose principles are accurately and successfully analyzed. These are exhibited in the Posterior Analytics, with such force of genius and labour of investigation, as spring from an indestructible foundation, and erect an immense system of abstract and general truth, fortified by demonstration, and rising, from story to story into a most luminous and lofty fabric.

But although his Poetics, whatever might be the expectation of the Stagirite, were never able

φέρουσι τὰς ἀποδείξεις, οἷον ἀριθμητικὴ, καὶ γεωμετρία, καὶ ὀπτικὴ, καὶ σχεδὸν [ὡς εἰπεῖν] ὅσαι τῷ διότι ποιοῦνται τὴν σκέψιν. ἢ γὰρ ὅλως, ἢ ὡς ἐπὶ τὸ πολὺ, καὶ ἐν τοῖς πλείστοις, διὰ τούτου τοῦ σχήματος ὁ τῷ διότι γινέται συλλογισμός.

Ὥστε κἂν διὰ τοῦτ' εἴη μάλιστα ἐπιστημονικόν. κυριώτατον γὰρ τῷ εἰδέναι, τὸ διότι θεωρεῖν. Εἶτα τὴν τῷ τί ἐστιν ἐπιστήμην, διὰ τούτου μόνῳ θηρεῦσαι δυνατόν. ἐν μὲν γὰρ τῷ μέσῳ σχήματι ὁ γίνεται κατηγορικὸς συλλογισμὸς· ἡ δὲ τῷ τί ἐστιν ἐπιστήμη, καταφάσεως. ἐν δὲ τῷ ἐσχάτῳ γίνεται μὲν, ἀλλ' ὁ καθόλου· τὸ δὲ τί ἐστι, τῶν καθόλου ἐστιν· ὁ γὰρ πῇ ἐστι ζῷον δίπουν ὁ ἄνθρωπος. Ἐπὶ τοῦτο μὲν ἐκείνων οὐδὲν προσδεῖται· ἐκεῖνα δὲ διὰ τούτου καταπυκνοῦται, καὶ αὔξεται, ἕως ἂν εἰς τὰ ἄμεσα ἔλθῃ. Φανερὸν οἷν, ὅτι κυριώτατον τῷ ἐπίστασθαι τὸ πρῶτόν ἐστι σχῆμα.—Analyt. Post. lib. i.

We can here plainly discover the intimate and indeed necessary connexion between syllogism and demonstration, both of which he had extracted from mathematics. This is still further evident from the third chapter of the sixth book of the Nichomachian Ethics, where he introduces the syllogism, after speaking of mathematical science. See also his examples in the two subsequent chapters.

to make a poet, or his Rhetoric, however excellent its criticism, an orator, without that native force of genius and vigour of imagination, the first and indispensable ingredients, which they may doubtless correct and improve, but never can supply—he resolved, with a bold and enterprising mind, though on weaker grounds of expectation, that the syllogism, which he had constructed with so much labour on so firm a basis, should form a universal reasoner, and conduct him with facility and success, in the search and illustration of probable truth, throughout all parts of science[6].

His sagacity soon discovered, that axioms or maxims, which are general propositions from which the media or arguments are to be drawn, must in the first place be formed as they are in mathematics, before syllogistic reasoning could be applied, as the guide to truth, in any of the departments of probable knowledge. In the analysis of demonstrative reasoning, he had beheld the wonderful and immediate effect, which the universal form or category of quantity possessed in the production of axioms or self-evident truths, as the principles of syllogistic argument; and he cherished the hope, (and when great minds are too sanguine, whilst their labours are entitled to our gratitude, their mistaken zeal bespeaks our pardon), that the other nine would furnish axioms with

[6] Ἡ μὲν πρόθεσις τῆς πραγματείας, μέθοδον εὑρεῖν, ἀφ' ἧς δυνησόμεθα συλλογίζεσθαι περὶ παντὸς τοῦ προτεθέντος προβλήματος, ἐξ ἐνδόξων.—Aristot. Top. lib. i. cap. 1.

almost equal ease, from which men might reason syllogistically on every possible question, and which they might apply in proof and elucidation of every kind of knowledge[7].

He therefore took the ten categories, or universal forms, from the Pythagorean school, where they had been held almost in adoration as the grand umpires of all knowledge, and prefixed them to his Organon, that they might supply axioms of every kind, as the laws and principles of all probable or dialectic, as well as of demonstrative reasoning. And to complete this great design, at the end of the Analytics, he added his book of Topics, wherein he delivers the methods, in which these general propositions are to be formed at pleasure from the categories, enumerating and distributing them into certain heads, according to the five predicables, and assigning them as the general principles of argumentation on every subject[8]. To these general principles thus easily procured, he applied the dialectic syllogism, which included, in his idea, every species of reasoning, according to

[7] Ardua est et gravis doctrina categoriarum, magnique usus et momenti, non ad logicam tantum, sed et metaphysicam, omnesque philosophiæ partes, quæ de ente universim, vel de partibus entis disserunt; sunt enim categoriæ veluti quædam familiæ, classes et ordines entis, seu compendia rerum omnium, certa ratione dispositarum, unde disserendi amplissima materies petitur et ipsa scientiarum objecta tanquam è locupletissimo penu depromuntur.—Du Val. Synop. in Aristot. p. 58.

[8] See Aristot. Top. lib. i. cap. 9, 10.

all the modes and figures, in which in his Analytics, he had with so much labour and ingenuity displayed the demonstrative.

Thus by a lofty and magnanimous flight of genius, at an early period of the world and in the infancy of science, Aristotle erected a fabric of universal reasoning; and as its governor, enacted the laws of disputation[9], according to which all its various artillery was to be levelled and discharged. By the addition of his book of Sophisms, he rounded the whole into a system of logic[10], or rather disputation, which stood for many ages the arbiter of all learning, and became the boast and idol of the schools. Of such ancient and illustrious seminaries it still continues to rule the discipline.

[9] See Aristot. Top. lib. viii.

[10] "To attempt, in so early a period, a methodical delineation of the vast region of human knowledge, actual and possible; and to point out the limits of every district, was indeed magnanimous in a high degree, and deserves our admiration, while we lament that the human powers are unequal to so bold a flight."—Dr. Reid App. to Ld. Kaims's 3d vol. of Sketches, p. 330.

In the conclusion of his book of Sophistical Elenchs, in which he finishes the whole Organon, which taken together must be allowed, notwithstanding its defects, to form one of the greatest monuments of human reason produced by one man, Aristotle apologizes for the errors of such an undertaking, which was entirely new and unattempted by any before himself. "Although the art of categorical syllogism," says Dr. Reid, "is better fitted for scholastic litigation, than for real improvement in knowledge, it is a venerable piece of antiquity and a mighty effort of human genius. We admire

As in exploring the depths and recesses of the earth for those treasures which are buried under its surface, and producing them to the use of man; so in discovering those truths which are hidden in similar obscurity on every side, and conveying them to our information, much depends upon the method and direction—that is, the kind of logic which we pursue.

It was fatal to the discipline of the schools, whose main object should have been the discovery and communication of universal truth, and which should train up the mind in the right method of science,—that the topical part of the Organon of Aristotle (which affects to be of more importance and extent than the analytical, as establishing the principles of all the parts of learning excepting the demonstrative[11], enacting the laws of all

the pyramids of Egypt, and the wall of China, though useless burdens upon the earth. We can bear the most minute description of them, and travel hundreds of leagues to see them. If any person should with sacrilegious hands destroy or deface them, his memory would be held in abhorrence. The predicaments and predicables, the rules of syllogism, and the topics, have a like title to our veneration, as antiquities; they are uncommon efforts, not of human power, but of human genius; and they form a remarkable era in the progress of human reason."—Ibid. p. 420.

[11] *Χρήσιμος πρὸς τὰ πρῶτα τῶν περὶ ἑκάστην ἐπιστήμην ἀρχῶν.—τοῦτο δ' ἴδιον ἢ μάλιστα οἰκεῖον τῆς διαλεκτικῆς ἐστιν. ἐξεταστικὴ γὰρ οὖσα, πρὸς τὰς ἁπασῶν τῶν μεθόδων ἀρχὰς ὁδὸν ἔχει.*—Top. lib. i. cap. 2.

probable reasoning[12], and guarding that reasoning from all possible error[13]), is weak in its foundation, and consequently, defective in all its parts. Here, we behold the great Peripatetic, falling, from the strength and dignity of the philosopher, displayed in his Analytics, into all the weakness and credulity of a sophist. Instead of analyzing the several subjects of inquiry, as they present themselves before him, and investigating the secret causes of their truth; he rests, without examination, on the bare authority of others, and erects the principles of his reasoning on their opinions[14], or on what was merely analogous[15] to their opinions. On comparing this, with the former part of the Organon, and with some of his other works, were it not written in the manner and style of Aristotle, and authenticated by the same evidence, we could hardly believe that this book

[12] See the 8th book of Topics.

[13] See the book on Sophistical Elenchs.

[14] Διαλεκτικὸς δὲ συλλογισμὸς, ὁ ἐξ ἐνδόξων συλλογιζόμενος. —Ἔνδοξα δὲ, τὰ δοκοῦντα πᾶσιν, ἢ τοῖς πλείστοις, ἢ τοις σοφοῖς· καὶ τούτοις, ἢ τοῖς πᾶσιν, ἢ τοῖς πλείστοις, ἢ τοῖς μάλιστα γνωρίμοις, καὶ ἐνδόξοις.—Top. lib. i. cap. 1.

Ἔστι δὲ πρότασις μὲν διαλεκτικὴ ἐρώτησις ἔνδοξος ἢ πᾶσιν, ἢ τοῖς πλείστοις, ἢ τοῖς σοφοῖς· καὶ τούτοις, ἢ πασιν, ἢ τοῖς πλείστοις, ἢ τοῖς μάλιστα γνωρίμοις, μὴ παράδοξος· θείη γὰρ ἄν τις τὸ δοκοῦν τοῖς σοφοῖς, ἐὰν μὴ ἐναντίον ταῖς τῶν πολλῶν δόξαις ᾖ. —Ibid. lib. i. cap. 10.

[15] Εἰσὶ δὲ προτάσεις διαλεκτικαὶ, καὶ τὰ τυῖς ἐνδόξοις ὅμοια.—Ibid.

See the 14th chapter of the first book De Propositionibus Sumendis.

came from the pen of that profound philosopher. The general propositions constituting the basis of a logic which the schools have so exclusively espoused, are by the method which it prescribes most superficially and illogically formed[16]; and the syllogisms which are constructed from them, instead of advancing, or even communicating truth, either conclude in falsehood, or only serve, as they have too long served, to protract useless disputation in noise and nonsense.

The cause of this great defect in the Organon of Aristotle may be traced to his blind and extravagant love of syllogism, that favourite child, which he begot in the Analytics, and which he resolved to enlarge in its possessions, and qualify with every accomplishment, as the instrument of all kinds of truth. To this should be added his ignorance, or rather neglect of induction, that sound and fundamental logic, by which alone those principles and general propositions, the sole support of useful syllogism in probable reasoning, can be firmly and philosophically established.

He mentions induction, no doubt, in different parts of his works, and gives a just, though general, description of its office[17]; but its particular operations he neither employed nor understood. He

[16] See the 9th and 10th books, in which the method is delivered of forming dialectical propositions.

[17] Ἐπαγωγὴ, ἡ ἀπὸ τῶν καθέκαστα ἐπὶ τὰ καθόλου ἔφοδος.—Top. lib. i. cap. 12. See Analyt. Prior. lib. xi. cap. 23, et Post. lib. ii. cap. 19.

acknowledges the immense importance of principles, by which he always means general propositions, in the discovery of truth[18]. But, to the investigation of these principles or general laws, by which the Maker of the world governs the world, he has made, both in his natural and moral dispensations, it was totally insufficient to mention, in a general and incidental way, the sole instrument by which the latent seeds of truth of every kind, so widely scattered or dispersed through all the individuals in nature, can be collected and arranged. Had this profound master of the philosophy of demonstration pursued the right method of forming by induction the principles of probable and contingent truth, according to the nature and genius of every subject which constitutes the circle of human learning; he would have chosen a more honourable and successful road to the temple of science. And then his logic, instead of bewildering and entangling reason in the trammels of partial and imperfect rules, would have afforded her a fair and liberal, though more laborious exercise, in the promotion and advancement of universal truth.

[18] Τῶν ἀρχῶν δὲ αἱ μὲν ἐπαγωγῇ θεωροῦνται, αἱ δὲ αἰσθήσει, αἱ δὲ ἐθισμῷ τινὶ, καὶ ἄλλαι δὲ ἄλλως. Μετιέναι δὲ πειρατέον ἑκάστας ᾗ πεφύκασι, καὶ σπουδαστέον ὅπως ὁρισθῶσι καλῶς. Μεγάλην γὰρ ἔχουσι ῥοπὴν πρὸς τὰ ἑπόμενα. Δοκεῖ δ' ὅλον πλεῖον ἢ τὸ ἥμισυ τοῦ παντὸς εἶναι ἡ ἀρχὴ, καὶ πολλὰ ἐμφανῆ γίνεσθαι δι' αὐτῆς τῶν ζητουμένων.—Ethic. Nicom. lib. i. cap. 7.

From this great imperfection of his dialectic, as the instrument of knowledge, confirmed by the ill success of many of his own philosophical investigations for want of sound and legitimate induction, we may venture to conclude that, if the master of the Lycæum knew their particular use and operation in forming the principles of good reasoning, his time was either too much engaged in collecting and arranging the learning of his age, or his enlarged and scientific mind was too deeply immersed in metaphysical and abstract speculations, to cultivate a mode of reasoning, which is so active and operative, so laborious in its process, and so much occupied in particular experiments.

Instead of descending to the canvass and examination of those individuals which constitute each branch of science, or ascending from them to generals, by successive and laborious steps; he pursued and dictated the more easy, but more fallacious method, of raising topics or common axioms, as the basis of dialectic reasoning. He applied immediately to the categories[19], those great and illustrious families possessed of all prerogative, and invested with all power to decide upon the truth or falsehood of every subject[20]. From these, he drew definitions and propositions, as from a mine unexhausted and inexhaustible; but which, being

[19] See Top. lib. i. c. 9.

[20] Sunt categoriæ quædam familiæ, classes, et ordines entis, seu compendia rerum omnium certa ratione dispositarum, unde disserendi amplissima materies petitur, et ipsa

bare assumptions unfounded in the real nature and qualities of things, had their resources only in imagination or ingenuity of invention. These became prolific of a verbose and artificial, but inefficient logic, and productive of a pompous, formal, but useless and phlegmatic discipline,—a discipline which instead of the advancement, has proved the obstacle and impediment of all real knowledge[21].

The categories are consequently universal forms; but between them and the individual and particular cases which solicit our immediate attention, exist a number and subordination of *genera*, through every one of which the logician should pass with the utmost care. Legitimate induction does not rise, by a hasty abstraction or superficial enumeration to the highest generals. Before it presumes to ascend, it descends by a practical and experimental examination of subordinate facts; and from many particular observations on the powers and properties, the actions and passions, the affections and qualities, the causes and effects of things,

scientiarum objecta tanquam e locupletissima penu depromuntur. Du Val. Synops. Doct. Peripat.

Decem prædicamenta principia sunt et omnis scientiæ et omnis ratiocinationis.—Ibid.

[21] Ad principia scientiarum constituenda præpropere festinarunt, circa quæ omnis disputationum varietas verteretur: nescientes profectum eum, qui certa nimis propere captaverit, in dubiis finiturum: qui autem judicium tempestive cohibuerit, ad certa perventurum.—Bacon. De Augm. Scient. lib. v. cap. 4.

after dividing, excluding and rejecting all special matter, it rises to general truths, and thence to more general, till it reaches the most general which can be known[22]. The great defect therefore of the Aristotelian logic (a defect by which the use and value of the dialectical part are totally destroyed) is the neglect of this primary experimental scrutiny, the omission of these necessary intermediate stages,

[22] In constituendo autem axiomate, forma inductionis alia, quam adhuc in usu fuit, excogitanda est: eaque non ad principia tantum (quæ vocant) probanda et invenienda, sed etiam ad axiomata minora et media, denique omnia. Inductio enim, quæ procedit per enumerationem simplicem, res puerilis est, et precario concludit, et periculo exponitur ab instantia contradictoria, et plerumque secundum pauciora quam par est, et ex his tantummodo quæ præsto sunt, pronunciat. At inductio, quæ ad inventionem et demonstrationem scientiarum et artium erit utilis, naturam separare debet, per rejectiones et exclusiones debitas; ac deinde post negativas tot quot sufficiunt, super affirmativas concludere; quod adhuc factum non est, nec tentatum certe, nisi tantummodo a Platone, qui ad excutiendas definitiones et ideas, hac certe forma inductionis aliquatenus utitur. Verum ad hujus inductionis sive demonstrationis instructionem bonam et legitimam, quamplurima adhibenda sunt, quæ adhuc nullius mortalium cogitationem subiere; adeo ut in ea major sit consumenda opera, quam adhuc consumpta est in syllogismo; atque hujus inductionis auxilio, non solum ad axiomata invenienda, verum etiam ad notiones terminandas, utendum est. Atque in hac certe inductione, spes maxima sita est.—Ibid. Nov. Org. lib. i. aph. 105.

De scientiis tum demum bene sperandum est, quando per scalam veram et per gradus continuos, et non intermissos aut hiulcos, a particularibus ascendetur ad axiomata minora, et deinde ad media, alia aliis superiora, et postremo demum ad generalissima. Etenim axiomata infima non multum ab

and the deduction of its arguments too hastily and superficially from the highest forms[23]. This is an error into which its author appears to have been partly betrayed by his love of metaphysics, the science of universals; and partly by forming his method of universal reasoning, from that of the mathematical or demonstrative science, which is conversant only in general truth.

Thus the theory of syllogism delivered in the Organon remains a splendid monument of human invention, a superb and stately fabric raised from the ablest specimens and examples of mathematical and demonstrative science, by the analytical acumen and mental philosophy of its author; but which, like the temples of the heathen divinities, on the ruins of which we may look with admiration, was never employed to any useful or honourable purpose. To devise another Organon of a different origin and construction, was an honour reserved for a future philosopher of an age and

experientia nuda discrepant. Suprema vero illa et generalissima (quæ habentur), notionalia sunt et abstracta et nil habent solidi. At media sunt axiomata illa vera et solida et viva, in quibus humanæ res et fortunæ sitæ sunt; et supra hæc quoque tandem ipsa illa generalissima; talia scilicet quæ non abstracta sint, sed per hæc media vere limitantur.—Ibid. lib. i. aph. 104.

[23] In notionibus nil sani est, nec in logicis, nec in physicis; non substantia, non qualitas, agere, pati, ipsum esse, bonæ notiones sunt,—sed omnes phantasticæ et male terminatæ.—Ibid. lib. i. aph. 15.

country remote from the Stagirite. This, instead of puzzling learning with artificial forms and perplexing knowledge with disputation, has put truth and nature to the torture by a thousand tests, and forced them to confess those secrets, which in spite of syllogism, had hitherto lain concealed, by which arts and sciences have been improved, to the great honour of learning and advantage of society. And, whereas Aristotle constructed or rather extracted the rules of his Poetics, his Rhetoric and Logic, after poets, orators, and philosophers had brought their respective professions to considerable perfection, by their natural sagacity and strength of mind; it is the peculiar honour of Bacon, that he delineated the rules of his inductive logic with great amplitude and precision, before the world had beheld any philosophical example of its truth. This argues an effort and strength of mind which eclipses even the merit and fame of Aristotle:

> Him for the studious shade
> Kind Nature form'd, deep, comprehensive, clear,
> Exact, and elegant: in one rich soul,
> Plato, the Stagirite, and Tully join'd.
> The great deliverer he! who from the gloom
> Of cloister'd monks, and jargon-teaching schools,
> Led forth the true Philosophy, there long
> Held in the magic chain of words and forms,
> And definitions void: he led her forth,
> Daughter of Heaven! that slow-ascending still,
> Investigating sure the chain of things,
> With radiant finger pointing to the skies.
>
> THOMSON.

On the appearance of this luminary in the firmament of science, after they had laboured in the search of truth for near two thousand years with a dark and imperfect guide, the Novum Organum of Bacon gave a new turn to the labours and studies of philosophers. They learned gradually to hold all vain hypotheses and mental fabrications in just contempt, and to respect nothing but propositions established upon facts, sufficiently tried and critically examined, and conclusions drawn from them by a fair and philosophical interpretation. The good sense of our sister university, enlightened by the genius of this her favourite son, burst asunder to her immortal honour the bonds of logical disputation by which she had been long enslaved, and vindicated the liberties of truth, by cultivating all its branches, according to the rules of this inductive logic. Sir Isaac Newton, if not the first, was at any rate, the most distinguished philosopher, who pursued and exemplified this better logic, in various branches of natural philosophy. Its value may be best appreciated from the wonderful effects it has produced in the hands of that exalted genius, both in his Principia and Optics. From these immortal labours, the Organum of Lord Bacon, the product of his own great and unassisted mind, might, by a kind of reflection, be still further improved and perfected.

It was in the ardent hope and expectation of the well-appointed study and cultivation of this New Organ, and of its application to all other parts of

learning, this great philosopher so earnestly and respectfully addressed our two celebrated English universities. The one has long since, as we have remarked, responded to this earnest and respectful appeal; and it now remains for the other to prove, that however late, she can still vindicate her rights against the ancient despotism of the Stagirite.

The Organon of Aristotle, on the contrary, instead of being, as he vainly hoped, the instrument of all truth, has been the instrument of ignorance and error[24]; thus that great philosopher has proved in the event the greatest tyrant in the universe. He not only subverted, with a bold and licentious hand, all the systems of the philosophers who went before him (not sparing even that of his master Plato, as his pupil Alexander spared all the empires of the east), but by that instrument, he manacled the philosophy of all future times. Though the dominion of that great prince and conqueror has vanished for many ages, and is now as though it never had existed, the chain of the

[24] Qui summas dialecticæ partes tribuerunt, atque inde fidissima scientiis præsidia comparari putarunt, verissime et optime viderunt, intellectum humanum sibi permissum, merito suspectum esse debere. Verum infirmior omnino est malo medicina; nec ipsa mali expers: siquidem dialectica, quæ recepta est, licet ad civilia et artes, quæ in sermone et opinione positæ sunt, rectissime adhibeatur; naturæ tamen subtilitatem longo intervallo non attingit; et prensando quod non capit, ad errores potius stabiliendos et quasi figendos, quam ad viam veritati aperiendam valuit.—De Augm. Scient. Præf.

philosopher is felt at this day by many learned bodies and societies, through some of the most civilized and enlightened parts of Europe[25]. His logic rendered more imperfect by ignorant and barbarous commentators, extolled as completely equipped to attend reason in the search and communication of all truth, infallible as a guide and incapable of improvement[26], has long superseded every other; keeping learning and science in a dark and gloomy prison, and drawing a cloud over the disk of the literary sun, by which it was for centuries eclipsed.

Whilst commentators, especially the Latin and Arabian, were obscuring this dark system by their illustrations, and the schoolmen were contending with great subtlety and little sense, and growing warm in disputation,—truth and learning were left to starve, cramped in their growth, and blasted in their prospects, in consequence of being deprived of their natural support and succour[27]. Instead of

[25] Cæterum de viro tam eximio certe, et ob acumen ingenii mirabili, Aristotele, crediderim facile hanc ambitionem eum a discipulo suo accepisse, quem fortasse æmulatus est; ut si ille omnes nationes, hic omnes opiniones subigeret, et monarchiam quandam in contemplationibus sibi conderet. —Ibid. De Augm. Scient. lib. iii. cap. 4.

[26] Primus mortalium Aristoteles certum logicæ finem constituit, precepta in ordinem redegit, singulari artificio integræ artis methodum contexuit. Quam invenit logicam, tam feliciter perfecit, ut in hunc usque diem, per annos circiter bis mille, perpetuis clarissimorum virorum studiis exculta, nihil prorsus acceperit incrementi.—Aldrich.

[27] "The slow progress of useful knowledge, during the many

extracting the pure and genuine ore, by an experimental and inductive process, these champions of syllogism were employed in raking together heaps of sophisticated dross, which they valued as the purest gold. Instead of pursuing Nature through her hidden stores, and connecting truth with truth, by a gradual operation into a useful and well-compacted chain, they fabricated their boasted systems of base materials, with all the subtlety of their art, into a useless and cumbrous yoke. Instead of connecting science with science, according to their natural order and relation, and erecting them into one great edifice of truth, they filled the schools with heaps of indigested rubbish, which however worthless and despised by some, adds to its inutility this disgrace,—that it still remains, in a great measure, to be removed by ourselves, or our posterity.

That even the Christian religion,—the most sublime and important of all truth,—was enabled to emerge from those errors and superstitions in which it was involved for ages, disguised and patronised, as they were, by the artifice and subtle-

ages, in which the syllogistic art was most highly cultivated, as the only guide to science, and its quick progress since that art was disused, suggest a presumption against it; and the presumption is strengthened by the puerility of the examples which have been always brought to illustrate its rules."—Dr. Reid's Appendix to vol. iii. of Lord Kaims's Sketches.

ties of such a logic[28], is a profound and solemn mystery, which can be explained only by referring the emancipation of this pure offspring of heaven, to the special interposition of its Divine Author, who became in his appointed time, the vindicator of his own honour, and the assertor of its awful and stupendous doctrines.

[28] "What is more sacred among sciences than divinity?—You have profaned it, by bringing in of that which you term scholastic, gathered out of Lombard, master of the Sentences, which has engendered unto us the race of the Thomists, Scotists, Albertists, Occamists, Realists, Nominalists, and such others, whose foundation is laid upon the subtleties of Aristotle. Let any man remark the themes of your sermons, the disputations of your schools, together with those great and huge volumes of commentaries upon the four books of the Sentences. Oracles are received every where from the *Tripus* of this philosopher, and the universities, that ought to be instituted after a Christian manner, are changed into the academies of that heathenish Athens. You spend more time in clearing that which seemeth ambiguous and doubtful in the doctrine of that ingrate disciple toward Plato, than in teaching your flocks the law of the gospel. The oaths which the universities do exact of their initiates and bachelors, that they shall not control him, are witnesses of the truth of what I speak."—De Croy's First Conformity, cap. 3.

[This quotation is taken from a work very scarce and little known, entitled, "The Three Conformities, or the Harmony of the Romish Church with Gentilism, Judaism, and Ancient Ceremonies, by W. Hart; London, 1620," 4to. It is a translation from the French, and the only copy I have met with is in the library of Sion College.—*Editor.*]

APPENDIX II.

THE AUTHOR'S APOLOGY.

AN attack levelled thus openly and directly against a system of universal logic,—sanctioned by the authority of Aristotle and made venerable by its antiquity, which has led the discipline of this seat of learning for many ages, and which maintains a kind of perfection in the opinion of some, holds a doubtful sway in the minds of others, and is totally discarded by few,—may, I suspect, offend the ears of most of those who hear me, and sound from this place, as the voice of blasphemy and rebellion. It may be fairly expected, that a charge, so solemn and unqualified, should be substantiated by some further evidence, or else relinquished, or—at least,—that some apology should be offered.

My apology is (if the love of truth need any apology—a love which, as it thinks, it fears, no ill), that I could not pursue the plan of these lectures, of which the different methods of reasoning form the most essential part, without incurring the displeasure of the school-logic by noticing its defects. I confess myself unwilling to relinquish

the charge, because I am persuaded, in my own mind, that it is just, till otherwise convinced,—yet am I open to fair conviction. And, that my apology may be something more than mere form and ceremony, at which my mind revolts as much as it loves the truth, I will endeavour to substantiate it, by bringing forward a proof or example of the falsehood and absurdity of the Aristotelian Dialectic, on which the school discipline has been formed in every part of scientific learning.

It is the criterion of all sound logic, that it leads to truth; and the great exception which I have taken to the topical or dialectic reasoning of the Stagirite, results from the very hasty and unphilosophical method which he prescribes of forming the general propositions, axioms, or maxims, as the principles, from which all contingent and probable conclusions, moral as well as physical, are to be drawn. If they be infirmly and illogically framed, all syllogism, however formally and logically deduced, will either conclude falsely, or, at best, unphilosophically, owing its triumph to accident, conjecture, or sophistry, and not to sound argument, should the conclusion even happen to prove true.

One of the universal sources, among others, from which Aristotle, by this wonderful invention, directs these dialectical propositions to be formed into the principles of probable reasoning, and that one of the least exceptionable, is the "rule of

contraries or opposites[1]." This he has exemplified and illustrated by a favourite instance; and the point to which I would now direct your attention, is the example of a proposition formed from this rule, which he intends to be universal in its operation (for he has directed that all these propositions should be as universal as possible[2]), and which affects, in its operation, an interesting and important branch of moral science—"For example," says he, "if it be a duty to wish well, and do good to our friends, it is equally a duty to wish ill, and do evil to our enemies[3]."

[1] "Ενδοξον δὲ καὶ ἐν παραβολῇ φανεῖται τὸ ἐναντίον περὶ τοῦ ἐναντίου.—Top. lib. i. cap. 10.

This rule is triumphantly brought forward by his great modern champion to overset a principle of the Newtonian philosophy. "It was in this way the ancients argued concerning opposite things; and particularly that great master of the reasoning art, Aristotle, who in his book of Topics has taught us that, if two things be opposite, opposite things will follow from them. Aristotle expresses the rule of reasoning in his short way thus:' Εἰ τὸ ἐναντίον ἐναντίῳ, καὶ τὸ ἐναντίον ἐναντίῳ.—Ancient Metaphysics, vol. ii. p. 338.

See chap. 10, lib. 1. Topic. De Proposit. Dialectic.

[2] Ληπτέον δὲ, ὅτι μάλιστα καθόλου πάσας τὰς προτάσεις, καὶ τὴν μίαν, πολλὰς ποιητέον, οἷον, ὅτι τῶν ἀντικειμένων αὐτὴ ἐπιστήμη.—Ibid. Top. lib. i. cap. 14.

[3] Οἷον, εἰ τοὺς φίλους δεῖ εὖ ποιεῖν, καὶ τοὺς ἐχθροὺς δεῖ κακῶς· φανείη δ' ἂν καὶ ἐναντίον τὸ τοὺς φίλους εὖ ποιεῖν τῷ τοὺς ἐχθροὺς κακῶς.—Ibid. lib. i. cap. 10.

See this favourite rule of contraries further illustrated by the same example.—Top. lib. ii. cap. 7.

The proposition which forms the first part of the opposition—"It is a duty to wish well, and do good to our friends," is indeed universally true; but the second, which from this great rule of contraries Aristotle determined to be equally true—"It is also a duty to wish ill, and do evil to our enemies,"—unfortunately for his dialectic reasoning upon this important subject, happens to be universally false, in every moral sense; and, by its application, has introduced many mischievous and fatal errors in practical ethics. One might indeed be induced to conclude, from a principle and mode of reasoning more probable than those which are delivered in his Dialectics, that One, who despised such vain philosophy, had this false and pernicious axiom, which had made such havoc in the moral system, in his omniscient mind, when he pronounced to his auditors on the mount the following divine instruction,—"Ye have heard that it hath been said [by them of old time[4]], Thou shalt love thy neighbour, and hate thine enemy; but I say unto you, love your enemies; bless them that curse you; do good to them that hate you; and pray for them that despitefully use you, and persecute you[5]." For the truth of this divine aphorism, our Lord does not appeal to any of the

[4] Matt. v. 21, 27, 33.

[5] Ἠκούσατε ὅτι ἐρρέθη· Ἀγαπήσεις τὸν πλησίον σου, καὶ μισήσεις τὸν ἐχθρόν σου. Ἐγὼ δὲ λέγω ὑμῖν· Ἀγαπᾶτε τοὺς ἐχθροὺς ὑμῶν, εὐλογεῖτε τοὺς καταρωμένους ὑμᾶς, καλῶς ποιεῖτε

topics and factitious principles of Aristotle; but through a sublime analogy, to a more certain and infallible rule—the will and example of his heavenly Father, the final and immutable criterion of all moral truth—" That ye may be the children of your Father which is in heaven; for he maketh his sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust—that ye may be perfect, even as your Father which is in heaven is perfect[6]."

In the preceding pages, having paid a just respect to the moral philosophy of the Stagirite, I cannot help adverting in this place to its great, I had almost said, its sole defect—the imperfect and inadequate principle on which it is founded. Had he known the genuine foundation of moral virtue, which nothing but revelation could adequately discover, the ethics of Aristotle would have exhibited a monument of that perfection, to which it is so seldom the lot of mortals to attain.

But to take an exception to the whole Dialectic from the failure of one rule, though in a most important point, may be thought partial and unfair; let us therefore take a more general view of the design and scope of the whole, as they are

τὺς μισοῦντας ὑμᾶς, καὶ προσεύχεσθε ὑπὲρ τῶν ἐπηρεαζόντων ὑμᾶς, καὶ διωκόντων ὑμᾶς.—Matt. v. 43, 44.

Μηδενὶ κακὸν ἀντὶ κακοῦ, &c. See Rom. xii. 17—21.

[6] Matt. v. 45, 48.

proposed in the book of Topics, and also of the effect it has produced on the other parts of his works.

The general design is given in the first sentence of the first book; and is so extensive and enlarged, as to embrace every subject of probable or contingent reasoning[7].

In the second chapter, the general scope is divided into three specific objects—exercise, conversation, and philosophical sciences[8]. With regard to the first object, that of exercise, it professes to furnish a method of disputing on either side in every possible question[9]. In reference to conversation, it professes to qualify men to weigh and to examine the opinions of many and to refute them, if they do not appear to be well founded[10]. And in respect of the third object,—the philosophical sciences, which is the most important,—it professes wonders,—not only to enable men to doubt on

[7] Ἡ μὲν πρόθεσις τῆς πραγματείας μέθοδον εὑρεῖν, ἀφ' ἧς δυνησόμεθα συλλογίζεσθαι περὶ παντὸς τοῦ προτεθέντος προβλήματος ἐξ ἐνδόξων.—Aristot. Top. lib. i. cap. 1.

[8] Ἐστὶ δὴ πρὸς τρία χρήσιμος, πρὸς γυμνασιαν, πρὸς τὰς ἐντεύξεις, πρὸς τὰς κατὰ φιλοσοφίαν ἐπιστήμας.—Ibid. lib. i. cap. 2.

[9] Ὅτι μὲν οὖν πρὸς γυμνασίαν χρήσιμος, ἐξ αὐτῶν καταφανές ἐστι· μέθοδον γὰρ ἔχοντες, ῥᾷον περὶ παντὸς τοῦ προτεθέντος ἐπιχειρεῖν δυνησόμεθα.—Ibid.

[10] Πρὸς δὲ τὰς ἐντεύξεις· διὸτι τὰς τῶν πολλῶν κατηριθμημένοι δόξας, οὐκ ἐκ τῶν ἀλλοτρίων, ἀλλ' ἐκ τῶν οἰκείων δογμάτων ὁμιλήσομεν πρὸς αὐτοῖς, μεταβιβάζοντες, ὅ, τι ἂν μὴ καλῶς φαίνωνται λέγειν ἡμῖν.—Ibid.

both sides of every question, but to determine what is true or what is false, with the greatest facility[11]. In addition to this, it makes it the proper and peculiar business of dialectic logic, to investigate and establish the principles of all the sciences[12].

How far, with such flattering promise, it has answered the lofty hope and expectation of its inventor, facts and experience will best decide. Its utility and value will be the most clearly ascertained by the fruits and effects which it has produced. "Fruits and inventions are the proper sponsors and sureties for the truth of different philosophies[13]."

Of its operation and effect in the mouth of Aristotle, whether in disputation or conversation, which terminate in a *viva voce* practice seldom committed to writing, we cannot perhaps form any clear and decisive judgment. It may however be here observed once for all, that in those of his

[11] Πρὸς δὲ τὰς κατὰ φιλοσοφίαν ἐπιστήμας, ὅτι δυνάμενοι πρὸς ἀμφότερα διαπορῆσαι, ῥᾷον ἐν ἑκάστοις κατοψόμεθα τἀληθές τε καὶ τὸ ψεῦδος.—Ibid.

[12] Ἔτι δὲ πρὸς τὰ πρῶτα τῶν περὶ ἑκάστην ἐπιστήμην ἀρχῶν. Τοῦτο δ' ἴδιον, ἢ μάλιστα οἰκεῖον τῆς διαλεκτικῆς ἐστιν. ἐξετάστικη γὰρ οὖσα, πρὸς τὰς ἁπασῶν τῶν μεθόδων ἀρχὰς ὁδὸν ἔχει. —Ibid.

[13] Inter signa nullum magis certum aut nobile est, quam quod ex fructibus. Fructus enim et opera inventa, pro veritate philosophiarum velut sponsores et fidejussores sunt. —Bacon. Nov. Org. lib. i. aph. 73.

works which have come down to us, he never uses the formal syllogism, but conveys his meaning in a style pure, concise, nervous, and elegant, though often obscure. And thus the practice of its author is so far a contradiction, and no inconsiderable objection to the logic which he prescribed.

In the philosophical sciences, which he has so largely treated, we may however fairly judge of the value and utility of this universal art, from the effects which it has therein produced.

One striking specimen of its ill success has been exhibited in his ethical philosophy. Let us now advert to the fruits it has produced under the cultivation of Aristotle in the field of natural philosophy. Not one of his warmest advocates, however sanguine in his cause, though he may have taught them to dispute every thing and to prove nothing, will, I think, be so hardy as to dispute his ability of doing all possible justice to his own invention. By principles, he always means general propositions, and it is the boast of his Dialectic to investigate the principles of every science terminating in probability, and to decide on truth and falsehood in each. Beginning however at the wrong end of the inquiry, and pursuing a false method in its progress, his logic was never able to produce one sound axiom in physics. Indeed his idea of the philosophical sciences in general was very hastily and superficially formed, as he supposed that in them, truth was a thing very easily to be found; which misconception of the

difficulty of science might prejudice his understanding, and form a principal cause of his erroneous method of physical investigation. But logic was his favourite offspring, destined to rule and domineer over every other branch of his literary family, to whose despotic sway every other part of learning was to be made a sacrifice. It is the result of the whole, that his physics, which from the hands of such a luminary of knowledge one might expect to be all light, originating in a weak and presumptive logic, which dealt in notions and hypotheses instead of experiments and observations, terminate in the darkest ignorance. If we except the sublime devotion of the few last chapters, this book of the Peripatetic is fitted for no other use, than to furnish factitious materials for idle disputation[14].

And what is here observed of his physics will hold equally good of his metaphysics, which, instead of building solid truth on an inductive foundation, by the painful process of self-observation, leap at once into abstractions of his own invention, from which ready made materials nothing is erected but visionary castles in the air. The cause of this fundamental error, from which

[14] Atque ex philosophiis istis Græcorum, et derivationibus earum per particulares scientias, jam per tot annorum spatia, vix unum experimentum adduci potest, quod ad hominum statum levandum et juvandum spectet, et philosophiæ speculationibus ac dogmatibus vere acceptum referri possit.—Bacon. Nov. Org. lib. i. aph. 73.

many others are derived, is expressed by himself in his first book of Topics—Ἐξ Ενδοξων[15]—that is, the arguments of syllogism were to be drawn, not from such general truths and propositions as are inductively and experimentally proved, but from such as might only appear to be true.

The labours of other philosophers have been attended in their application of this logic to the sciences with similar success, from this cause, that, by this method of inquiry, the true forms of things, from which sound axioms are made, can never be obtained. And the root of the evil is this, that men draw their attention too soon and too far from experience and particulars, and give themselves up to reveries and disputations[16]." The slow progress of science and philosophy, during the many ages in which the syllogistic method was employed in the cultivation of learning, is a proof founded in experience, which evinces its falsity and futility. Though it has espoused many an error and given birth to many more, with regard to the advancement

[15] Διαλεκτικος δὲ συλλογισμὸς, ὁ ἐξ ἐνδόξων συλλογιζόμενος. cap. 1.

[16] Quia illo inquirendi modo, qui hucusque in usum venit, nunquam in sæculum comparebunt rerum formæ. Radix autem mali hujus, ut et omnium, ea est; quod homines et propere nimis et nimis longe, ab experientia et rebus particularibus, cogitationes suas divellere et abstrahere consueverunt, et suis meditationibus et argumentationibus se totos dedere.—Bacon. De Augm. Scient. lib. iii. cap. 4.

and propagation of truth, it will die at last a vestal, without bringing into the world one new discovery.

How far the Dialectics of the Stagirite have contributed, amongst the disciples of his school, to the ease and advantage of conversation, or to the clearness and elegance of that intercourse which prevails in the higher and more literate departments of society, is a point which may be said to be very problematical. But that his third expectation, that of exercise (which, as he places it the first in order, seems to have been the chief in his intention), has been fully answered, is a truth confirmed by the fatal experience of many ages. The exercise of disputation, not the advancement of learning, appears to have been his great and leading object. His logic is indeed admirably calculated for this favourite end. Its principles and axioms are all so loosely and indiscriminately formed, and are in themselves so vague and indistinct, that they will apply to one question equally with another. By an artful management of terms and propositions in the different forms of syllogisms, they can often be adapted to either side of the debate. By this syllogistic dexterity and sophistic art, so much darkness and confusion can be introduced into every subject, that the disputation, after many a round, in which the combatants on both sides are elated with ideal conquest, terminates in an unedifying logomachy, or contest of artificial words. Instead of useful and sober truth, in which both might equally rejoice and mutually partake, the

result is furious contention, proud animosity, and personal resentment[16]. Instead of being finally determined and decided (by which they would be finally lost), the same questions which were disputed still remained to be disputed, and were preserved with a jealous care, for the advancement of this favourite exercise, to become the theme of future contests, victories, and triumphs. And to complete this syllogistic exercise, with every necessary equipment for its honour and extension, its founder has delivered the precepts for the assailant to make his attack so as to ensure the victory, or for the respondent to keep him at such a distance, as never to be forced to yield—that each may descend from the well-fought field with the pride of an able warrior, and with something like conquest on his brow[17].

The natural effect of exercise in this doubtful disputation was suspicion and uncertainty in the minds of its ablest practitioners, instead of promoting clearness and conviction or the advancement of truth[18]. For the sake of this exercise, the

[16] St Paul has given us an admirable picture drawn by his expressive pencil from his observation on a disputant in theology: *Τετύφωται, μηδὲν ἐπιστάμενος, ἀλλὰ νοσῶν περὶ ζητήσεις καὶ λογομαχίας· ἐξ ὧν γίνεται φθόνος, ἔρις, βλασφημίαι, ὑπόνοιαι πονηραὶ, παραδιατριβαὶ διεφθαρμένων ἀνθρώπων τὸν νοῦν, καὶ ἀπεστερημένων τῆς ἀληθείας.*—1 Tim. vi. 4, 5.

[17] See the second book of the First Analytics, and the last book of the Topics.

[18] Chillingworth was a man of great ability of understanding, and of a rare temper in debate. He had passed all

schoolmen embraced a logic devoid of every other use or qualification, which they erected into the standard of their discipline and the director of all their studies, and which, together with the other works of Aristotle, they cherished by a weak and ignorant, though unanimous assent[19]. It indulged their indolence and flattered their vanity. And whilst they devoted their whole attention to his works, they idolized their author. Hence all improvement in science was checked at once, the progress of learning obstructed; every attempt to advance in knowledge defeated and disgraced; and the road to learning was stopped with Aristotle, who became at once the umpire of reasoning and standard of truth[20].

his younger time in disputation, and had arrived at so great a mastery as to be inferior to no man in these skirmishes. But he had, with this notable perfection in this exercise, contracted such an irresolution and habit of doubting, that by degrees he grew confident of nothing, and a sceptic at heart in the greatest mysteries of faith.—Lord Clarendon's Life, p. 55.—*Author.*

Perhaps the best modern examples of the use of formal syllogisms, may be found, in some of his disputes with the Jesuits of his day. See particularly his argument against Romish infallibilities, from their contradictions on transubstantiation, in the "additional discourses" at the close of his works, edit. 1719.—*Editor.*

[19] Quod vero putant homines, in philosophia Aristotelis, magnum utique consensum esse—illud de consensu fallit homines, si acutius rem introspiciant. Verus enim consensus is est, qui ex libertate judicii, re prius explorata, in idem conveniente, consistit.—Bacon. Nov. Org. lib, i. aph. 77.

[20] Si hujusmodi scientiæ plane res mortua non essent, id minime videtur eventurum fuisse, quod per multa jam sæcula

And here we may look for one, if not the main cause of the darkness of the middle ages, which affected indiscriminately the arts, the sciences, and the Christian religion. This darkness, the universities of Europe, which should have been the lights of the world, contributed to increase and continue, by their bigoted use of this false and artificial logic. Under this obscurity, increased by such a study, the tyrant of the Romish hierarchy practised his tyranny over the minds and bodies of princes as well as people. Amidst this darkness, and supported by this logic, he introduced all the absurd and impious assemblage of ceremonies and innovations, to the great corruption of the purity, and the greater scandal of the piety and simplicity of the primitive church. Under its auspices, he introduced feigned traditions, together with the doctrines of transubstantiation, image-worship, and invocation of saints, and sale of

usu venit, ut illæ suis immotæ fere hæreant vestigiis, nec incrementa genere humano digna sumant: eo usque ut sæpenumero non solum assertio maneat assertio, sed etiam quæstio maneat quæstio, et per disputationes non solvatur, sed figatur et alatur; omnisque traditio et successio disciplinarum repræsentet et exhibeat personas magistri et auditoris, non inventoris, et ejus qui inventis aliquid eximium adjiciat. In artibus autem mechanicis, contrarium evenire videmus. Quæ, ac si auræ cujusdam vitalis forent participes, quotidie crescunt et perficiuntur; et in primis auctoribus rudes plerumque et fere onerosæ et informes apparent, postea vero novas virtutes, et commoditatem quandam adipiscuntur, eo usque, ut citius studia hominum et cupiditates deficiant et mutentur, quam illæ ad culmen et perfectionem suam per-

indulgences, by which he enriched his coffers from the pockets of his spiritual slaves in all the nations of Europe. To this infamous and deplorable state of things, the universities, under the dominion of Aristotle, in those ages powerfully contributed, affecting amidst all their ignorance, the pride and ambition of the master whom they so implicitly obeyed.—See Cave. Hist. Lit. vol. i. Prolegom. pp. 1, 2.

And thus, after levelling the systems of all preceding philosophers and producing others of his own invention, bequeathing some vague and general hypotheses, as a legacy to his disciples, with a fund to raise more at pleasure, that they might do immortal honour to his logic[21] by affording it perpetual exercise in the schools of Athens or elsewhere,—Aristotle locked up the temple of knowledge and threw away the key, which, in the absurd and superstitious veneration of his authority,

venerint. Philosophia contra, et scientiæ intellectuales, statuarum more, adorantur et celebrantur, sed non promoventur: quin etiam in primo nonnunquam auctore maxime vigent, et deinceps degenerant.—Bacon. Nov. Org. Præf.

[21] Adamant homines scientias et contemplationes particulares; aut quia auctores et inventores se earum credunt; aut quia plurimum in illis operæ posuerunt, iisque maxime assueverunt. Hujusmodi vero homines, si ad philosophiam et contemplationes universales se contulerint, illas ex prioribus phantasiis detorquent et corrumpunt; id quod maxime conspicuum cernitur in Aristotele, qui naturalem suam philosophiam, logicæ suæ prorsus mancipavit, ut eam fere inutilem et contentiosam reddiderit.—Id. Nov. Org. lib. i. aph. 54.

was lost for many ages. It was found at last by a native of our own country, whose name as a philosopher, and particularly as a logician[22], does more honour to England than his to Stagira; who threw open the prison in which science had been held captive, and once more set her free; who, with a bold and virtuous sacrilege, tore the laurel from the brow of that dark and deified philosopher, which he had so long and so injuriously worn.

That the Aristotelian logic was introduced in the universities of Europe, that it was admitted as the guide to truth and the vehicle of instruction, and was erected as the standard of their general discipline, cannot be a subject of surprise, when we reflect, that as the sciences and arts were spread from Athens over the provinces of Europe, the merit of all learning consisted, for many ages, in studying the languages, reading the authors, and retaining and retailing whatever they contained. And since the matter of various kinds, collected by Aristotle from all the philosophers of antiquity, and digested and improved by him, was embraced with implicit confidence, the syllogistic method, of which he claimed the sole invention, was held in the highest veneration and esteem, and adopted as the instrument of universal science. The wonder

[22] Illud vero monendum, nos, in hoc nostro organo, tractare logicam, non philosophiam.—Nov. Org. lib. ii. aph. 52.

is,—that after the authors of antiquity had been well read and understood, and their subjects of information sufficiently exhausted, that when philosophers and divines dared to advance in the detection of their errors, as well as in the search and discovery of solid truth,—the scholastic discipline did not incur the same fortune with the improvement of philosophy, or the reformation of religion; that it was not canvassed and examined at that era; exploded, if false, or corrected, if erroneous.

But the dialectic logic, which, on the blind authority of Aristotle, first took possession of the schools, held that possession too strongly fortified and secured by the warm prejudice and bigoted prepossession of its votaries; supported on the one hand by the ignorance which it promoted, and cherished on the other by the indolence which it indulged. The vanity of the schoolmen embraced it with rapture and fostered it with ambition, offering to its inventor, not merely the overflowings of their gratitude, but the first fruits of their devotion[23], thus furnishing them with a

[23] The zeal of one of these devotees may probably entertain the reader: "Est ergo ars, sive scientia, bene disserendi, ante alias omnes philosophiæ partes accersenda, sine cujus auspiciis nihil certo sciri recteque intelligi possit. Hinc enim ars artium, scientia scientiarum dicta est; non quasi sit scientiarum princeps, et præstantissima (hic enim titulus uni theologiæ, id est, metaphysicæ, debetur), sed, quod ad omnes sit necessaria, ideo accommodatius dicitur organum organorum, instrumentum instrumentorum, ancilla, clavis,

happy expedient, by which their pregnant fancy could raise notions and hypotheses, fair structures of their own (Ἐξ Ενδοξων), as the principles of argumentation, without any of the pains of personal experiment, or labour of inductive investigation[24]. These supplied them, at the same time, with all its modes and figures, in which they could show their ingenuity, by casting the fruitful offspring of that fancy into various shapes, and display their numerous syllogisms and sophisms before ignorant admirers, in all the pride of formal disputation. And thus, in the darkness of the schools, this weak and antiquated discipline has continued to triumph from age to age over the improvement of science. In these strong-holds, as an enchanted castle, by brandishing its rusty armour, it has held out against a much stronger and better claimant, maintaining its authority by keeping up an external, but insignificant formality, with no inconsiderable degree of parade and ostentation.

But as truth and knowledge are never at a stand,

janua, spes, testa, murus philosophæ, docendi vero discendique magistra, veri falsique disceptatrix et judex; arbitra etiam methodorum, definitionum, divisionum, syllogismorum, Pegasi ungula, Silenus Alcibiadis, plus habens in recessu, quam in fore, lima ingeniorum, cos veritatis, ars disputandi, scientia rationis oratione conclusæ, denique rationalis, sive logica, dissertatrix, sive dialectica."—Du Val. Synops. Analyt. Doct. Peripat.

[24] De inductione vero dialectici vix serio cogitasse videntur, levi mentione eam transmittentes, et ad disputandi formulas properantes.—Bacon. De Augm. Scient. Distr. Op.

so neither are ignorance and error. The syllogism of Aristotle, the chief defect of which results from the imperfection of the principles it adopts, has in these latter ages been supplanted, or rather mixed and confounded with a thing of modern invention[25], —more like the decision of a carpenter, than the conclusion of a philosopher; insomuch that the present scholastic syllogism is so compounded and metamorphosed, that the schoolmen would be now unable to determine either what it is, or of what it is composed[26].

"Verily thou art a God that hidest thyself[27]"—is the character given by an ancient prophet to the Author of all truth; and to "search him out[28]" in his mysterious dispensations of nature and of grace, constitutes in the judgment of another sacred writer, "the honour of the first of men." That all human knowledge, at any time or in any period of the world, however favoured by circumstances, should remain subject to the law, or determined by the standard of one man or class of men, where inspiration is not concerned, is an affront to the human understanding. It supposes, that since the days of Aristotle, our faculties are impaired by time or injured by abuse, and that after the labours of near two thousand years no advancement has been made in the discovery of truth. It is, at the same

[25] See p. 114.
[26] See Wallis's Logic, cited Ibid.
[27] Isaiah, xlv. 15. [28] Proverbs, xxv. 2.

time, an affront to the majesty of the Deity, who is unsearchable in his counsels and inscrutable in all his ways, as it presumes that the depths of his power and wisdom are completely fathomed. This was a prejudice, which however weak and impious, took and retained possession of the minds of men for many ages; and which, growing into a confirmed and inveterate bigotry, prohibited further researches, under the pretence of avoiding hurtful innovations. The genuine love of truth, which should burn with a free and ardent flame, was smothered by this prohibition, and the exercise of the understanding shackled and confined in its pursuit. The merit of the student was made to consist, not in advancing knowledge by adding to its stock, or by rectifying and correcting what was false and imperfect; but in remembering and preserving what was already only supposed to be known, or confirmed by an implicit and ignorant consent. Learned men, instead of roaming at large through the field of knowledge, in the quest and acquisition of truth from every quarter, were like a flock of sheep following each other in the same beaten track of ignorance and error[39].

Under the cloud of this prejudice and intolerant bigotry, the public discipline of the schools was erected upon the model of Aristotle and sanctioned by his authority, which was made absolute

[39] Numerus longe maximus eorum, qui in Aristotelis philosophiam consenserunt, ex præjudicio et auctoritate aliorum, se illi mancipavit; ut sequacitas sit potius et coitio, quam consensus.—Bacon. Nov. Org. lib. i. aph. 77.

and unchangeable, in a dark and superstitious age, long before the birth of our English philosopher and reformer of science. And though both our universities were invited by that great legal, political, and literary character, in terms of the purest friendship and condescension, to change and improve their discipline, and to pursue a method of study less contracted and more liberal, less verbose and contentious, and more rational and philosophical[30]; it is a truth we have at this day to lament, that this false and feeble plan of study and education has not been publicly expelled, and supplanted by a better: that Aristotle, who exploded

[30] Almæ Matri Inclytæ Acad. Cantabrigiensi. S.

Debita filii, qualia possum, persolvo; quod vero facio, idem et vos hortor, ut augmentis scientiarum strenue incumbatis, et in animi modestia libertatem ingenii retineatis, neque talentum a veteribus concreditum in sudario reponatis. Affuerit proculdubio et affulserit divini luminis gratia, si humiliata et submissa religioni philosophia, clavibus sensus legitime et dextre utamini; et amoto omni contradictionis studio, quisque cum alio, ac si ipse secum, disputet. Valete.

Inclytæ Academiæ Oxoniensi. S.

Cum, almæ matri meæ inclytæ academiæ Cantabrigiensi, scripserim, deessem sane officio, si simile amoris pignus sorori ejus non deferrem. Sicut autem eos hortatus sum, ita et vos hortor, ut scientiarum augmentis strenue incumbatis, et veterum labores, neque nihil, neque omnia esse putetis; sed vires etiam proprias modeste perpendentes, subinde tamen experiamini, omnia cedent quam optime; si arma, non alii in alios vertatis, sed, junctis copiis, in naturam rerum impressionem faciatis; sufficit quippe illa honori et victoriæ. Valete. Fr. Baconus Verulam.

[To this letter, the University returned a very handsome answer.—See Lord Bacon's Remains, p. 204.—*Editor.*]

all the philosophers before him, is not made to submit, in his turn, to the vicissitude of times and things, and removed from the high seat of penal authority[31], which he has so long and unjustly held in our universities.

Yet absurd and imperfect as is the ancient discipline, it has still its advocates. To remove prejudices which have been early imbibed, and dispossess inveterate prepossessions, has always been found a task of difficulty. Some appear to think, that to change a constitution literary no less than civil, may be a work of danger. It is the greatest impediment to reform however, that the few who are convinced of its propriety, are not willing to advance, and that what should be the work of all, is the business of none. Hence in the midst of an enlightened and improving age, this dark discipline remains in use, revered by some, contemned by many, and neglected by all. The useless and unwieldy fabric is left to stand an antiquated pile dishonoured and disgraced; over which, as a venerable ruin, it becomes us rather to lament than triumph, and to conceal its particular defects, by quietly removing it, rather than by exposing them to public view.

The consequence is, that the University discipline, in every branch of learning, is forced out of the public, into more private channels. In these every part of a learned and liberal education is cultivated with advantage and inculcated

[31] Vide Stat. Univ. Oxon. Tit. vi. sect. ii. § 9.

with success. Since the schools were neglected, the colleges have improved. Although the mainspring of the great literary machine be worn out by time, and not yet replaced, there are other wheels in action of far better mechanism, improving and to be improved, which move to the honour and advancement of general learning. Still truth obliges us to confess, there is a great defect. The private discipline can never be made to operate with full spirit and effect, unless animated and supported by the public; nor can the other wheels, however excellent in their construction, act with the same harmony and exactness as when kept in motion by one great and central spring.

Truth is the fairest and best apology. The account which I have given of the present state of academical discipline is strictly just, so far as my observations have extended, which have been made with the utmost care and accuracy.

To revise and reform the public discipline of this ancient university is an important task, not less difficult in the execution, than desirable, if well performed; to be undertaken with earnestness, conducted with ability, and pursued with perseverance. That from the joint assistance of scholars and philosophers, not sciolists and pedants, men divested of prejudice on the one hand, and on the other inspired with the love of learning, it may undergo a speedy and effectual renovation; that, under the conduct and direction of the pub-

lic, the private discipline of every college and society may improve and flourish; and that all places of public institution, both here and every where, devoted to narrow-minded and mercenary views, and which delight in sloth and ignorance, may decay and perish;—this is an event, which in an enlightened age may be reasonably expected, and the hope which every friend to church and state may ardently entertain.

[The editor feels it due to the public and the university, no less than to himself to state, that he regrets the republication of some part of this "Apology." It was originally intended, that it should have been altogether withdrawn from this edition; but he has since felt, that it would be exercising too great a discretionary power on the works of a deceased author to carry this design into effect. The characteristic energy of Dr. Tatham often led him to use somewhat stronger expressions than the occasion would justify; and both in his censures on the university, and his reply to the late Dr. Knox, we must make considerable allowance for this constitutional zeal and ardour. The animadversions on Dr. Knox are omitted, as they were cancelled in the copy left by the author.]

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DR. TATHAM'S BAMPTON LECTURES

MDCCLXXXIX

THE

CHART AND SCALE OF TRUTH

IN TWO VOLUMES

VOL II

Pro certo habeant homines, non sectæ nos alicujus aut placiti, sed utilitatis et amplitudinis humanæ fundamenta moliri.

BACON. Nov. Org Præf.

THE CHART AND SCALE
OF TRUTH
BY WHICH TO FIND THE CAUSE OF ERROR

LECTURES READ BEFORE THE
UNIVERSITY OF OXFORD AT THE LECTURE FOUNDED BY
THE REV. JOHN BAMPTON M.A.

BY EDWARD TATHAM D. D.
LATE RECTOR OF LINCOLN COLLEGE OXFORD

A NEW EDITION REVISED CORRECTED AND
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A MEMOIR PREFACE AND NOTES
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LATE OF LINCOLN COLLEGE

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THE

CHART AND SCALE OF TRUTH,

BY WHICH TO FIND THE CAUSE

OF ERROR.

PART II. THEOLOGY.

Chap. I.

The Logic of Theology.

TO this general Chart of Truth, speculative, practical and poetical, I now proceed to add another and far higher province, or rather, that which forms their metropolis and capital. Like a metropolis however, though distinct and superior, it holds an intimate connexion with all, and at once imparts and receives strength and glory from the union. This is a department of science, distinct in its nature, superior in its origin, more extensive in its objects, and more im-

portant in its end—in which, the intellect, the will, and the imagination have universally the deepest interest, and the sublimest exercise.

This metropolitan province is the science of theology—a science resulting from the relation between God the Creator, the moral Governor of the universe, and man, the creature, the moral agent in this lower world. Out of this supreme relation, springs the law of the moral Governor, on the one hand—which is the will of God—and on the other, the obligation of the moral agent operating on the will and affections of man.—Here we find the foundation of all religion, which forms the crown and perfection of intellectual and moral truth.

Theologic truth consequently does not spring out of any material subject in the compass of the universe, nor from the mind of man, in its various operations or imitative effects, like those of the other kinds of truth, which we have previously discussed. It arises from another, and far higher source—the will of God, more fully and more immediately declared, than in the ordinary administration

of his providence. It is thus derived from the noblest origin, and it has in view the noblest end—the immortal happiness of man.

This distinct and divine dispensation opens a new field of knowledge and is productive of a new species of truth, which considered logically, is far more distinct from any of those which we have hitherto analyzed, than any of their distinctions, however important, from each other. It is this difference which constitutes the science of theology—a science of which Aristotle was altogether ignorant—or he would have founded his ethics on another basis. It would also have enlarged his logic, for it would have brought him acquainted with another and far higher kind of truth, than any of those on which he so sagaciously reasoned.

But, as reason is concerned with the investigation and evidence of all truth which relates to man, however imparted, or through whatever channel, this species of truth, though infinitely superior to every other, hath a logic appropriate and peculiar to itself. This logic is now to be analyzed and arranged according to the spirit and scope of the

general rule which we have heretofore laid down[1].

Of the existence of the moral Governor of nature reason requires no particular proof. She finds him in every thing material which he has made, and feels him in every act of the mind he has created. But of his will, or law, she stands in need of vast and various information. Of the existence of this Almighty agent, reason is immediately and intuitively convinced by the will of man, by conscience, that internal or moral sense, which is the voice of God, proclaiming his presence in the human heart. But of the nature and duty of moral obedience, which is the counterpart of this law, she requires "line upon line, and precept upon precept."

All law and obligation, practically considered, (and whatever relates to will is practical), are words, devoid of meaning, unless they have a sanction to secure their mutual operation. Of the general sanction of reward and punishment (which, though inverse, has the same influence on the will), reason is immediately and intuitively convinced by

[1] See vol. i. p. 69.

conscience—" Wickedness is condemned by her own witness[2]." But on the nature, proportion, extent, and duration of punishment or reward, reason cannot pronounce with any sufficient certainty and precision.

Whatever natural reason has discovered of the will or law of God, or of the nature and duties of moral obligation, is properly termed Natural theology. This was not only the highest and most honourable employment of the human mind, in the estimation of the heathen sages of antiquity, but has received the far higher approbation of an inspired writer—" When the Gentiles, which have not the law, do by nature the things contained in the law, these having not the law, are a law unto themselves: who show the works of the law written in their hearts, their conscience also bearing witness, and their thoughts meanwhile accusing or excusing each other[3]."

Such was the high employment of Pythagoras, Socrates, Plato, Aristotle, Cicero, and many other philosophers of Greece and Rome, who made laudable and considerable progress

[2] Wisdom, xvii. 11. [3] Rom. ii. 14, 15.

in the study of moral truth. But, as these sages, in their investigation of physical truth, are found, by the experiments of modern science, to have been miserably defective and erroneous; so have they been proved, by the superior light of that theologic truth, which we derive from revelation, to be still more defective and erroneous in their moral and religious researches.

This divine revelation is conveyed to man by the word of God, and the truth which it contains is, therefore, called *theologic*. It exhibits to us the code of the new law, as distinguished from the old law, or the law of nature. It is new, not only as being conveyed to us "by a new and living way;" but by its suspending or superseding the old law, as far more perfect in its information, more beneficial in its end, and more adapted to our moral wants and requirements.

By this revelation, we are far more clearly informed of the law, or will of God, as our moral Governor; and of his purpose and dispensation, in securing the happiness of man. By this revelation, we are more distinctly informed of our moral obligation to

that law, and of all the particular duties, which spring out of that obligation, towards God and our neighbour. We are also hence informed more fully and accurately of the sanction of that law, of those punishments and rewards which will take place hereafter, when the moral system, commenced on earth, shall be perfected in heaven. Above all, by this revelation, the state of man, as a fallen and sinful creature, is explained, and the remedy is proposed for his redemption and recovery. The demands of the moral law are plainly set before him—he is convinced of his utter natural inability to perform its demands, and thus is prepared to acquiesce in that message of the gospel, so worthy of all acceptation,—" that Christ Jesus came into the world to save sinners."

To give a philosophical delineation of this higher logic, by distinguishing its principle, by illustrating its proper method of reasoning, and by ascertaining the peculiar nature and genius of the truth resulting from the whole, is the main object of my present undertaking. For the sake of displaying more clearly and adequately the science of

theology in all its parts, this general Chart of the different kinds of truth was first projected, and the parallel drawn between the logic appropriate to each. We may humbly but earnestly hope, that from such an enlarged and comparative estimate, it may receive the strongest and distinctest light, that thus its study may be facilitated, if not improved, that its truths, being weighed in an equal and impartial scale, may have their full and proper value, and that its superior excellence may be more distinctly ascertained. This plan, if executed with success, promises to lay the deepest and broadest basis, on which to ground and establish the Christian faith[3].

The departments of learning, which have been the subjects of the preceding lectures, are properly human. This, which comes now to be discussed and illustrated by a comparison with them, is properly divine. As the Creator and moral Governor of the universe is the author of both, and is ever

[3] See p. 72, vol. i.

similar in his operations, and consistent with himself, the one may, in some degree, lead us to a knowledge of the other; and thus however different, nay, and sometimes even contrary to each other, they may serve as mutually illustrative, whether by analogy or contrast. As Newton, from the motion of projectiles on earth, soared with analogic wing to the motion of the planets in the heavens, encouraged by that divine resemblance pervading all the works of God, whether natural or moral, which still exists, even when they appear as contraries or contrasts; even so may the student of theology ascend, from the cultivation of human sciences, to the study of divine. From a logical and comprehensive knowledge of the different branches of human learning, he will derive strength and cultivation of mind, and clearness of comprehension, which will abridge his labour and assist his progress in every part of his sublime profession. Instead of being perplexed by a chaos and confusion of different studies, the bane of all proficiency in good learning, he will know how to apply and improve each to his advantage. Instead

of being embarrassed by an intrusion of subjects from other parts of knowledge, which defeat his reasoning, or disconcert his train of thinking; from the logical acquaintance with all, he will see where the distinction lies, and be able to adapt each, in its proper use, to the great object of his inquiry. Thus instead of wandering from one difficulty to another, in the midst of partial and indigested information, as in a maze of error increased by an indiscriminate glare of light, he will move on with ease and safety, in the serenity of a clear and comprehensive mind. Prejudice, which in narrow conceptions, is always so inveterate and often so invincible, will give place to candour, whilst all partial and minute objections will be lost in enlarged and comprehensive views. The theological student will found the principles of his science on their just and philosophical basis, distinguishing them from those of every other; and, after pursuing that method of investigation which is naturally adapted to them, without deviating into any other, he will embrace with a manly and reasonable assent the stupendous truths of Divine Revelation.

Those which he can comprehend, he will enjoy with gratitude; and those which are above his conception, he will adore in profound admiration.

But, to derive this use and advantage to his studies from such a comparative estimate of theology with the other parts of learning, he should be apprized, that much labour and attention are to be previously employed. To read with care, to think with candour, to judge with impartiality, and to determine for himself, are the first and leading qualifications of the theological student. Many and various are the comparisons to be formed between one science and another in all their correspondent relations,—whilst that of theology should be compared with every other. To form these comparisons with accuracy and success, he will feel the necessity of a competent acquaintance with the circle of the sciences being previously formed. He will discover, that to do justice to this exalted and extensive field of knowledge, which is the object of his cultivation, it is not enough to read over on the one hand, the bulky folios of school-divinity with a dronish and bigoted

industry, embracing whatever is advanced with an implicit assent; nor on the other, to run through the popular volumes of some modern divines, which are calculated to relieve him from the trouble of thinking, or the labour of attention, and to kill an idle hour in all the ease of indolent straightforward reading. The study of theology is both scientific and laborious, and requires above any other an independent and active mind. And whoever may honour these volumes with a perusal, their author presumes to request, that he will take nothing on the authority of the writer, or depend upon his judgment, but examine every thing, and judge for himself; that he will do him the favour not to read them over in an indolent or hurried way, with a view to be merely entertained (in which he will be miserably disappointed); but, that he will look back to different parts of the parallel, and compare them together; that he will examine with freedom, and correct with candour. As a fellow-labourer in the commonwealth of learning, the author will engage on his part, to accept of all improve-

ments with gratitude, and adopt them with simplicity.

With sentiments of deepest awe and reverence, I enter upon this province of sacred truth, which though protected, as it ought to be, from outrage and open violence, by the civil power, is ever to maintain its authority over the minds of men, by its own inherent worth and native evidence. This exalted study is not the less perplexed in all its parts, nor rendered the less difficult in its arrangement and discussion, by the number and diversity of champions, who in succession, have taken this consecrated ground. The society of the learned, in this as well as in all other departments, may be divided into two classes—the one consisting of the few, the other of the many. The former are those bold and enterprising geniuses, who advance before their fellows in the road of science, in the discovery of truth, or the arrangement of method. The latter lag behind, at a humble distance, content with the inferior praise of admiring and tracing their steps, without attempting to advance beyond

them; patronising their inventions, espousing their opinions, and adopting their errors[4]. The former, who are naturally capable of thinking for themselves, by becoming too much wedded to their own systems and inventions, from which they are unwilling to depart, are often rendered by their success unable to proceed in the advancement of knowledge: whilst a peasant from the plough, with a strong and active mind, undebauched by system, is almost a fairer candidate in the field of literature, than those of the second class, accompanied with all the parade of learning, without any of the power.

Affecting neither to dictate on the one hand, nor implicitly to follow on the other, but soliciting to be examined and improved on these, as I have done hitherto in the departments of human learning, let me here also beg leave of systematic divines, without any disrespect or contempt for their labours,

[4] "Those which give themselves to follow and imitate others, were in all things so observant sectators of their masters, whom they admired and believed in, as they thought it safer to condemn their own understandings, than to examine them,"—is an observation of the great Raleigh on the learned men of his time.—Hist. of the World, chap. iii. § 1.

to claim the privilege of a free adventurer in the search of truth, and to treat this great argument of theology, after my own way. Though truth may be most easily and frequently found in the broad and beaten path, and not the less to be valued, because overtaken in the common road; yet by following each other in the same unvaried track of formal cultivation, with a sacred care never to deviate from it, philosophers, both divine and human, confirm many errors, without improving many truths: and though, in the other mode of proceeding, errors are perhaps more liable to be incurred, they will sooner be detected; whilst, from the candour and liberality it professes, they should no sooner be detected, than abandoned.

Theology is the queen of sciences. To her, all the sister-parts of learning should minister and subserve.—"The virgins that be her fellows should bear her company,"—to cultivate the understanding and prepare the heart, to exalt and purify the imagination for this sublimer service. To train the mind in the gradual search of knowledge, to raise it

as it imperfectly gathers strength, from one subject to another, to direct its progression from science to science; to facilitate and enlarge its comprehension, whilst the exercise of its faculties is confined within the sphere of their distinct and proper action; to know its capacity and compass when stretched to their utmost reach, and, above all, to rest contented in the fruition of truth, whatever it may be, or however found,—this is that divine and philosophic discipline by which mortals may best improve and direct their energies. This is the proper end and object of theological study. Whilst it exalts the intellect to the summit of attainable knowledge, it subdues the will to virtue, and engages the imagination as their mutual support and ornament; and thus, by its admirably useful culture prepares the mind, as a bridal chamber, for the reception and entertainment of those diviner truths, which may hereafter exalt that honour into permanent and substantial glory.

CHAP. II.

THE THEOLOGICAL PRINCIPLE.

THE kinds of truth which form the several departments of human knowledge belonging to the different provinces of the theoretic, the practic, and the poetic mind, are the inferences and deductions of natural reason. They result from principles existing in the nature and constitution of subjects, material or mental, to which they respectively relate[1]. And thus a part of that truth, which in the Divine Mind is universal and intuitive, is by the use of sense and reason, conveyed progressively into the human; where it exists, according to the nature of the subjects from which it is derived, and in proportion to the mind in which it dwells[2].

But truth, as we have observed, is origi-

[1] See vol. i. p. 62. [2] Ibid. p. 9—13.

nally of the nature and essence of God[3], an attribute of his omniscient mind[4]. Infinite regions and oceans of truth must exist therefore in that universal and unbounded intellect, which sees all things without a medium —which contemplates mysteries beyond the reach of our senses to apprehend, our reason to investigate, or our best faculties to conceive, both from want of principles, and want of capacity.

If the natural operations of the Deity—if the exertions of his power in governing and disposing the material system of the universe by the instrumentality of second causes (which are subject to the senses and capable of experiment), form a labyrinth of dark and difficult investigation to human reason—if, after our ablest and most successful researches, many of the works of nature are only partially discovered, and some remain totally concealed[5]—surely, the moral and intellectual dispensations of his wisdom, those more spiritual parts of his government, which

[3] See vol. i. p. 5, 6. [4] Ibid. p. 9. [5] Ibid. p. 178.

are immediately administered by an act of his omniscient mind, and removed from the observation of external sense, must form a system of more deep and mysterious contrivance, unfathomable in its profounder parts, as the depth of his intellect. All the departments of this sublime dispensation, which lie beyond the reach of human faculties, if they ever become the subject of our knowledge, must therefore be derived into the mind from a principle or ground of evidence, essentially different both from external and internal sense, and communicated by an instrument far superior to that of reason.

Our great philosopher, whose clear and comprehensive mind arranged the departments and marked the confines of all learning, has thus distinguished this principle of divine from those of human knowledge, by a general division—"All knowledge is allotted a two-fold information—the one originating from sense, the other from inspiration[6]." And this distinction, so essential to the true foundation of theology, is made by another, who

[6] Bacon. De Augm. Scient. lib. iii. cap. 1.

excels him, as much in divinity of thought, as in sublimity of expression: "Hardly do we guess aright at the things that are upon the earth, and with labour do we find the things that are before us; but the things that are in heaven, who hath searched out, —Thy counsel who hath known,—except Thou give wisdom, and send thy Holy Spirit from above[7]?"

This new principle, by which the mind and will of God, the moral Governor, is immediately dispensed to man, the moral agent, is called *Inspiration*. It is the most direct communication of truth, from the source and centre of all truth. Some few individuals have been so dark in apprehension, so preposterous in judgment, or so perverse in reasoning, as to call in question the possibility of this divine communication. They have been so extravagantly absurd, as to demand the formal demonstration of a universal axiom, which is one of those, (if I may so speak) that demonstrates itself, by

[7] Wisdom, ix. 16, 17.

resulting immediately from the existence of God. To doubt of this important truth, is to insult our Maker, by doubting of his power; and to deny this truth, is to deny that he, who gave men sense and reason, the only means by which natural knowledge is acquired, can convey to them knowledge in another and higher way. How pertinently and powerfully do the inspired writers expose these doubts and sophisms, by a direct implication of its truth, from the power, the wisdom, and the goodness of the Supreme.— "He that planted the ear, shall he not hear? He that formed the eye, shall he not see[8]? He that made the mouth[9], shall he not speak? And he that framed the mind, shall he not teach man knowledge[10]?"

Appointed the lords and sovereigns of the whole visible creation, and distinguished with many divine and extraordinary gifts; admitted, by the information of the external and internal sense, to the possession of so much knowledge, speculative and practical, and thought worthy of the far higher favour,

[8] Psalm xciv. 9. [9] Exodus, iv. 11. [10] Ps. xciv. 10.

to be taken into a near connexion with the supreme Lord and Governor of the universe, by being constituted his moral subjects accountable to himself; He, who hath bestowed upon men these supereminent prerogatives, who has endowed their understandings with the power of drawing so much knowledge from principles in nature, and of communicating it to each other by human intercourse, He, who hath given them the still nobler prerogative of the will, can, out of the treasures of his wisdom, impart to them other and sublimer truths by his supernatural communication, for the employment of that understanding and the exercise of that will. Who may presume to wonder, that He, who is the fountain of all truth, should communicate to his moral agents such portions of it, as their reason cannot deduce from those material and mental subjects with which it is connected; especially when he can enlighten the willing mind, and prepare it for their reception and improvement? His omniscience knows the necessities of his moral agents, created for happiness and enjoyment; his goodness is ever ready to

supply them. Or who can doubt of his power?—" The greatness of Thy mercy reacheth unto the heavens, and thy truth unto the clouds[11]!"

The possibility and credibility of divine inspiration, or supernatural instruction, being thus ascertained, let us now inquire into its legitimate authority, as the principle or basis of theologic truth, and consider the nature and constitution of this peculiar source of information on the subject of revealed theology. We may thus be enabled to ascend to the application of this celestial principle, as the foundation of a logic, so different and superior to any which we have hitherto explored, in connexion with other sciences. We may thus also, in some degree, ascertain its superior weight and importance in the scale of moral truth.

—When Mago arrived at the gates of Carthage, charged by the victorious general with the important embassy of the defeat of

[11] Psalm xlvii. 11.

the Romans in the battle of Cannæ, though they did not themselves witness the truth of that great event, the whole senate entertained the welcome news on the relation of the brother of Hannibal; and on his pouring out, in the vestibule of their house, the rings of the Roman knights who fell in that bloody action, they were fully confirmed of the truth of the intelligence and thoroughly convinced of the important fact[18]. And when Columbus, on his arrival in the western hemisphere, told the Indians that the ships, in which he had sailed over the Atlantic, were made by men; though they could have no conception how such vast and complicated machines were built, they gave credit to this truth, on the word of that celebrated navigator. Had these different facts not been credited by the informed, their mistrust or disbelief could have made them no less true. They were however credited by both parties, on the authority of their informants. In the first instance, by men, who were capable of understanding clearly the nature of the

[18] Liv. lib. xxiii. cap. 11, 12.

victory of Hannibal, and how it was accomplished from the narration of his brother. In the second, by men, who were incapable of comprehending the complex and artful construction of an European ship, or of conceiving how it could be erected by human power. And whether the nature of the facts related, were understood or not by the informed, was also a circumstance which could not in the least affect their positive truth. They were both however received and credited alike on the testimony of others, and were both equally true.

In similar circumstances are all men placed, from the condition of their nature, in regard to nearly all the truths which affect human life and action. Few indeed are the things which the wisest can discover, or know, or prove by themselves, and were we unaided by the information of others, they would be fewer still. We should then be little wiser than the brutes and without their instinct—less qualified to pass through the world, or to perform our duties in it. Confined within the narrow limits of time and place, possessed of various degrees of knowledge and infor-

mation, and of different capacities and reach of understanding for their acquisition, we are of necessity obliged, in every sphere and scene of life, to rely on the credit and veracity of each other, and to receive the largest and the most useful proportion of truth, of almost every kind, from information and tradition. These are consequently the most common and extensive sources, or channels, of truth; and whether capable of understanding it or not, men are obliged to found upon them the most important thought and the most eventful conduct. By this borrowed light, they have been led from age to age; nor, upon the whole, have they reason to complain that they have been led wrong. If such then be the credit and authority of human testimony, so extensive yet trustworthy, as the experience of every one must convince him, in reference to many of the most interesting and important truths of life and conduct; how properly and how pointedly does the reasoning of the inspired apostle, enforcing, with sublime analogy, the authority of a divine communication, come home to our

self-conviction!—"If we receive the witness of men, the witness of God is greater[13]."

The testimony of God conveyed to man, not by a natural, but supernatural communication, is thus brought down to the apprehension of reason; in other words, reason ascends to the cognisance of the Divine veracity, from its analogy to human testimony. And thus, by reasoning from the testimony of man, to the testimony of God (as Newton from projectiles, to the planetary forces); this transcendent principle of theology is logically and scientifically formed.

The nature of testimony in general, or "the witness of man," as a principle of truth, has been stated and discussed in the former part of this work[14], where it was found to operate with more universality and extent than any other, being the general vehicle by which truths of every kind are communicated and conveyed. If we here make use of the clue held out to us by the apostle, which leads us from earthly to hea-

[13] 1 John, v. 9. [14] Chap. iv. and v.

venly things, reason will conduct us safely, by a close and obvious analogy, (the only logic by which divine truths can be conveyed to men), from this human principle, to the divine; from this testimony of men, whence is derived the greatest share of natural or human truth, to the testimony of God;—the source and vehicle of those truths, which are supernatural or divine, and which, being communicated by the word of God, are essentially and necessarily *theologic.*

All truth, whether natural or supernatural, proceeds alike from God, but in different ways, and by different dispensations. However various in appearance or multiplex in form, it is connected like all his works, by a pervading and consistent chain. Of this chain, one main link consists in the principle of testimony, which is common to both; by which, an easy and familiar transition is made, from truths that are human, to those which are divine.

It is not by induction, or by syllogism, but by analogy, that reason arrives at the prin-

ciple of all sound theology; and it is by analogy, that it is to be cultivated through all its provinces. For, whether the Almighty act through the instrumentality of his creatures, or more immediately by himself; whether he convey truth to the minds of men through the natural organs of the senses, by the information of others, or by a supernatural communication of his own, he is ever uniform and consistent, so that one part of his divine economy becomes introductory to another, and illustrative of its truth. By this wonderful uniformity, which pervades heaven and earth, earthly things become the expressive types and resemblances of heavenly things; on which real resemblance, that analogy is founded, which is the great instrument of all supernatural truths, by which alone they can be conveyed to men.—Thus the Almighty instructs men in heavenly and invisible things, which are the objects of faith, by analogical reference to earthly and visible things, which are the objects of sense; and thus conveys to us a sufficient knowledge of himself, his attributes, and his

actions, by analogous reference to the powers, passions, and actions of mankind[15].

Such is the true nature and foundation of that logic, which is peculiarly appropriated to subjects of theology, and which has had the sanction and approbation of Him, who is its origin, its instrument, and end.—"Jesus departed into the coasts of Tyre and Sidon: and behold a woman of Canaan came out of the same coasts, and cried unto him, saying, 'Have mercy on me, O Lord, thou son of David, my daughter is grievously vexed with a devil.'—But he answered and said, 'It is not meet to take the children's bread and to cast it to the dogs.' And she said, 'Truth, Lord: yet the dogs eat of the crumbs which fall from their master's table.'" This answer to his allusive observation of the children's bread, possessed a quality so singularly excellent, as to attract from him an animated eulogium, accompanied with the grant of her request:—"O woman, great is thy faith! be it unto thee even as thou wilt[16]." This answer, so highly applauded and honoured by

[15] Bp. Browne's Divine Analogy. [16] Matt. xv. 21, &c.

our Lord, was the result of reasoning by analogy,—that, as the dogs eat of the crumbs of the master's table, after the children are supplied and satisfied; so she, though an alien from the house of Israel, and not entitled to the first overtures of his grace, might hope for some small portion of his superabundant favour, after the children of that house were served. On this rational ground of analogy, sprung the excellency of her faith. And we have another very striking instance upon record, of the same high approbation accorded to this mode of reasoning, and to the effect which it produced.—"And when Jesus was entered into Capernaum, there came unto him a centurion, beseeching him, and saying, 'Lord, my servant lieth at home sick of the palsy, grievously tormented.' And Jesus saith unto him, 'I will come and heal him.' The centurion answered and said, 'Lord, I am not worthy that thou shouldest come under my roof: but speak the word only, and my servant shall be healed[17]. For I also am a man set

[17] Matt. viii. 5, &c.

under authority, having under me soldiers, and I say unto one, Go, and he goeth; and to another, Come, and he cometh; and to my servant, Do this, and he doeth it.' When Jesus heard these things, he marvelled, and said unto the people, 'I say unto you, I have not found so great faith, no not in Israel[18].'" The admiration of our Lord was, doubtless excited by the centurion's arguing, from this parity or analogy of reasoning,—that, as one, whose power though infinitely inferior, was vested with an authority by which he could execute his commands, without going in person; so our Lord's divine and supernatural power was so great, that he could heal diseases at a distance, as well as in his own presence.

These passages of sacred story are memorable and important. From this conviction of the truth of his divine authority, founded on analogic reasoning, the author of our religion pronounced the faith of the parties to be more excellent than any other: and if to these instances of such marked and decided approbation, we add the numerous parables,

[18] Luke, vii. 8, 9.

similitudes, and analogies, which he employed on all occasions to convey his supernatural truths to men, we may infer that this method of reasoning is specially consecrated to the service of religion.

Upon this analogic reasoning, the great principle of all theology is founded—"If we receive the witness of men, the witness of God is greater." From the nature of divine testimony, it can lay hold of the mind of man only by its analogy to human. "This is the witness of God, which he has testified of his Son;" and accordingly, "he that believeth on the Son," as the apostle argues, "hath the witness," the prototype and principle of the evidence, "within himself[19]."

In the kingdoms both of nature and of grace, the God of all truth is wonderfully consistent in the mode of its dispensation; and analogy is the intellectual instrument by which, in one no less than in the other, man is enabled to ascend from earth to heaven. From the curves and motions of projectiles,

[19] John, iii. 10, 11.

we have already beheld the astronomer rising by a sublime analogy, to those of the celestial bodies[20]; as we have seen the theologist rising from the testimony of men to the testimony of God: and as those stupendous orbs, rolling in silent majesty through the vast regions of space, are infinitely more exalted and sublime, than the projectiles by which they are illustrated and explained; so this divine testimony, which is conveyed to the apprehension of man, and made a principle of reasoning by its analogy to human, is infinitely superior, more exalted, and sublime, in proportion as God, in knowledge, fidelity, and all perfection, is superior to man. "The witness of God is greater."—The word of such a witness must be invincible in power, and paramount to every thing which does not involve a positive contradiction.

The testimony of God, which is in its own nature infallible, is consequently the highest species of evidence, superior to that of sense, or of mathematical demonstration.

[20] See vol. i. p. 149, 156.

He is too wise to be deceived, and too good to deceive. If he will not suffer our senses to be deceived, while well informed, nor our minds to be deceived, in things which they are competent to understand; he will not deceive us in his own immediate revelations —so that there is the same foundation for faith as knowledge, our belief in the divine veracity[21].

The theological principle being thus logically founded and explained, we shall discover the specific nature and force of the truths resulting from it, by observing the operation which it must produce on the mind, and by comparing it with the principle of other kinds of truth.

That all reasoning is from principles of some specific kind, and that the method which it pursues is governed by the nature of those principles, and productive of a species of truth exactly correspondent and

[21] Reid's Inquiry into the Human Mind, chap. vi. sect. 24.

proportioned to both[22], is that leading logical doctrine, which this general Chart would illustrate and enforce in every part of science. On comparing the theological principle, with those which have been severally delineated in the preceding volume, in order to weigh the specific operation and effect of each in the just scale of truth; it will be found to differ more from them all, in its logical nature and operation, than any individually differ from each other. Thus it constitutes a new light or inlet of knowledge, and consequently, the truth resulting from reasoning in theology may be expected to produce a different effect upon the mind, and to command a species of assent peculiar to itself.

All other kinds of truth are derived into the understanding, primarily, from the senses external or internal; or secondarily, from the testimony of men, and are called natural. Theologic truth, derived from the immediate impression, or communication, of the Deity,

[22] See vol. i. p. 24 and 63.

is called inspiration, and as distinguished from them, is supernatural[23]. In the former cases, reason begins her operation with particular truths, and rises, by a laborious inductive process, to general conclusions. Thus the secondary principles or general truths are to be applied, by a different operation, to the proof of particular truths. In the latter case, after the general principle is established, reason has no direct concern with the truths at all, which spring immediately of themselves, from the divine inspiration[24]. Her office consists only in the proof of that inspiration, from those internal and external evidences by which it is accompanied, and which, though inseparably interwoven with

[23] It is thus the apostle very accurately discriminates between the principles of metaphysical and theologic truth —" What man knoweth the things of a man, save the spirit of man which is in him? Even so, the things of God knoweth no man, but the Spirit of God."—1 Cor. ii. 11.

[24] In rebus naturalibus, ipsa principia examini subjiciuntur per inductionem, licet minime per syllogismum; atque eadem illa nullam habent cum ratione repugnantiam, ut ab eadem fonte, tum primæ propositiones tum mediæ deducantur. Aliter fit in religione, ubi et primæ propositiones authypostatæ sunt, atque per se subsistentes.—Bacon. De Augm. Scient. lib. ix. cap. 1. [An abridgment of the original. *Editor.*]

it, are to be considered, as essentially distinct and separate from the truths themselves[25]. When the fact of inspiration is proved, the divine testimony, which is the principle of all theology, results immediately from it, and is proved, as the cause is proved from the effect. As, on the one hand, in establishing the principle, reason has no direct concern, but only that which arises from analogy; so, on the other, it has no concern in deducing them from it by any process, beyond that of proving their existence in the sacred records[26]. They are admitted as revealed; and so far as they are revealed, they flow from the principle intuitively, without the intervention of deduction of any kind, and convince the mind, without any other authority than the supreme credit of the witness. .They are implicitly to be received, without any operation of the judgment, on the word, or testimony, of God[27].

[25] See Chalmers's Evidence of Divine Revelation. *Editor.*

[26] Et rursus, non reguntur ab illa ratione, quæ propositiones consequentes deducit.—Bacon. de Augm. Scient. lib. ix. cap. 1.

[27] Prærogativa Dei totum hominem complectitur; nec minus ad rationem, quam ad voluntatem humanam, extendi-

The ground of our assent does not lie in the abstract credibility of the things themselves, but in the veracity of God, who has revealed them. Whether they be revealed more or less fully, they are to be believed, so far as they are revealed, without our even attempting to throw any further light upon them of our own;—"His thoughts are not as our thoughts," and who may dare either to question, or superadd to the truths by him communicated? Whether, like the Carthaginian senate, we are able or think ourselves able, to comprehend them; or, with the benighted Indians, we are unable to form any conception of them at all: since He who hath revealed them, knew for what purpose they were designed, and in what proportion they were to be given; since he is totally free from error, and equally incapable of fraud or falsehood—who, I say,

tur, ut homo in universum se abneget et accedat Deo. Quare, sicut legi divinæ obedire tenemur, licet reluctetur voluntas; ita et verbo Dei fidem habere, licet reluctetur ratio. Etenim si ea duntaxat credamus, quæ sunt rationi nostræ consentanea, rebus assentimur non auctori; quod etiam suspectæ fidei testibus præstare solemus.—Bacon. De Augm. Scient. lib. iii. cap. 1.

may presume to question, or superadd to the truths which He has communicated?

Thus inversely to its procedure, in the various kinds of knowledge which are natural, in theology, reason has no concern with the truths of revelation, either in the direct formation of their general principle, or in judging of them as they are derived from it. "Faith," or the assent which they produce, cometh not by reasoning, but by "hearing, and hearing by the word of God[28]." This principle subsists and terminates in itself. Like its author, it is alpha and omega, the beginning and the end, the first and the last. —Such is the only true and genuine ΑΥ̓ΤΟ῾Σ ῞ΕΦΑ.

This preeminent principle, the testimony of God, is not only essentially different from mathematical, physical, and all other axioms; but also from the principle of human testimony. From analogy to this, it first takes possession of the mind; but it is needless to observe it is infinitely more excellent and superior in power. Human testimony is a

[28] Rom. x. 17.

principle only of probable truth. It is subject to error in its origin, often vague and precarious in its reasoning, and of various degrees of credibility; but the testimony of God, is in the eye of analogy, as superior to that of man, as the heavens are higher than the earth. Comparing the strength of human testimony with divine, the Baptist, who, like the morning star, was appointed the immediate harbinger of this supernatural light, has displayed its superiority in terms the most emphatic—"He that cometh from above, is above all: He that is of the earth is earthy, and speaketh of the earth: he that cometh from heaven, is above all; and what he hath seen and heard, that he testifieth." He then proceeds to urge the transcendent authority of this testimony—"He that hath received his testimony, hath set to his seal, that God is true. He whom God hath sent speaketh the words of God, for God giveth not the Spirit, by measure, to him. The Father loveth the Son, and hath given all things into his hands[29]." —And this authority is enforced upon the

[29] John, iii. 31—35.

minds of men by the beloved disciple, in very similar terms—"This is the witness of God, which he testifieth of his Son. He who believeth on the Son of God hath the witness in himself: he who believeth not God, hath made him a liar; because he believeth not the record which God gave of his Son[30]." He then proceeds to state, in a few plain words, the stupendous substance of this record or testimony—"That God hath given us eternal life;" and "that this life is in his Son[31]"—the end and the means of religion. The end worthy of Him, by whom it was designed; the means worthy of Him, by whom they were brought to pass.

Thus theologic truth is essentially different from every other kind; and its effect upon the mind will be proportioned to the divine authority and transcendent superiority of its principle.

Compared with the several kinds, which have been analyzed in the preceding volume, how totally distinct will this be found in its

[30] 1 John, v. 9, 10. [31] 1 John, v. 11.

constitution, or its operation on the mind! Though, from the infallible authority and transcendent supremacy of its principle, theological truth be equal in force and conviction to mathematical conclusions, yet in its specific nature it is the very reverse. Whereas they are the deductions from general principles, by a train of reasoning the most syllogistic, elaborate, and extensive of any other; this results from its principle, without a single intermediate act of judgment. And as all the other kinds of truth which we call natural, claim an assent, in proportion to the nature of their principles and mode of reasoning; this supernatural truth, when its principle is established on its own independent evidence, commands an assent proportionable to itself, without any reasoning at all. "He who believeth," as the apostle suggests, "hath the witness in himself." If his mind admit the witness, it must immediately admit the truth (an assent distinguished by the name of faith), which is absolute and intuitive, independent of all the powers of the understanding, the will, or the imagination; and with which reason has no

direct concern. Its duty is to bring our faculties with all diligence and alacrity to embrace the truth, and in all virtue and humility to acquiesce[32].

The truths which are the objects of our faith, are on this account distinguished from all other kinds, by the name of *mysteries*. But, as in advancing from truth to truth, we have observed the mind proceeding through a regularly ascending scale, beginning with the lowest and rising higher and higher as it advances; so, in condescension to our natural desires, and to invite men to the enjoyment of the sublimest truths, the dispenser of these mysteries hath made some of them to stoop, or seem to stoop, to the level of our comprehensions. Others, by their sublimity, reach into the heaven from which they came, and are awfully lost to all human sight, in the clouds and darkness which surround "his throne."

On those mysteries which are revealed with so much clearness, as to be brought within the comprehension of the human mind (though

[32] See Lord Bacon's tract on "the Interpretation of Nature," and his Advance of Learning, book ii. *sub fine*.

to discover them at first was out of the province of reason, whatever fitness she may find in them, when once revealed), and which seem to be the connecting link between the little we are allowed to know, and the much from which we are excluded, we may worthily employ our meditations. Reason may explain them with simplicity, without prying into them with a curiosity too presumptive, or affecting to give them more light than the Inspirer hath imparted[33]. She may contemplate them with reverence, from a view of the justice and goodness of the Deity displayed in their dispensation, and illustrate

[33] Humanæ rationis usus, in rebus ad religionem spectantibus, duplex est: alter, in explicatione mysterii; alter, in illationibus, quæ inde deducuntur. Quod ad mysteriorum explicationem attinet, videmus, non dedignare Deum ad infirmitatem captus nostri se demittere; mysteria sua ita explicando, ut a nobis optime ea possint percipi; atque revelationes suas in rationis nostræ syllepses et notiones veluti inoculando; atque inspirationes ad intellectum nostrum aperiendum sic accommodando, quemadmodum figura clavis figuræ seræ. Qua tamen in parte nobis ipsis deesse minime debemus: cum enim Deus ipse opera rationis nostræ in illuminationibus suis utatur; etiam nos eandem in omnes partes versare debemus, quo magis capaces simus ad mysteria et recipienda et imbibenda; modo animus, ad amplitudinem mysteriorum, pro modulo, suo dilatetur, non mysteria ad angustias animi constringantur.—Bacon. De Augm. Scient. lib. ix.

them by inferences and illations, rather than dive into his secret counsel, by deciding on their fitness with too determined a precision[34]. On those, which lie beyond the sphere of the most enlarged conception, man may think with reverence, and silently adore; not narrowing the mystery to the contraction of his mind; but enlarging the mind, as far as possible, to the amplitude of the mystery. He should view them with all the purest affection of love and admiration, from a consideration of their end; and, in prostrate humility, confess them to partake of that incomprehensible wisdom from which they flow[35]. Reason, by an indirect and secondary operation, may draw inferences and conclusions from these

[34] Quantum vero ad illationes; nosse debemus, relinqui nobis usum rationis et ratiocinationis (quoad Mysteria) secundarium quendam et respectivum, non primitivum et absolutum. Postquam enim articuli et principia religionis jam in sedibus suis fuerint locata, ita ut a rationis examine penitus eximantur; tum demum conceditur ab illis illationes derivare ac deducere, secundum analogiam ipsorum.—Bacon. De Augm. Scient. lib. ix.

[35] "Why," saith St. Jerome, "do you pretend, after so many ages are elapsed, to teach us what was never taught before? Why attempt to explain what neither Peter nor Paul thought it necessary to be known?"—Ad Pammach. et Ocean. de Erroribus Origenis.

deeper mysteries, according to the analogy of faith, which will afford her an important and extensive scope; taking care to distinguish between the authority of the inference, and that of the principle. But it is the great duty of the Christian, to regulate both his faith and conduct, by the doctrines and precepts of the gospel or word of God, whether enabled, more or less, to comprehend the grounds and reasons on which they stand. Acknowledging the evidence, by which, as the edicts of heaven they are supported, to be satisfactory and divine; he will best approve his wisdom and gratitude to God, by yielding an implicit obedience to his laws.

It is the property of those theologic truths, which we term mysteries of faith, that they cannot be solved or explained by the principles or axioms of philosophy, and that consequently, they are subject to difficulties and objections, which reason, proceeding on these principles or axioms, may raise against them, and which, of course, she can never solve. But it ought, in such cases, to satisfy every consistent believer of divine revelation, that his faith is founded on a higher and more

comprehensive principle, and that the difficulty arises from the finite not being able to embrace the infinite. It is the natural result of partial knowledge and imperfect faculties.

Amidst her admiration of the stupendous mysteries of religion, reason may thus be reconciled to her own insufficiency. They are supernatural, and nothing is to be found within the compass of nature to compare them to, in order to conclude. They admit of no middle term. They are divine, and cannot be measured by what is human. They are as first principles, and with first principles reason has no concern. They are given, by the supreme authority of God, not that we may comprehend, but embrace them with all that humility and confidence which is due to One, who hath given us our faculties, and who has assigned their limits. Those who consider reason, not the handmaid, but the mistress of religion, totally mistake both her office and her power. They plunge at once into the depths of error. They do not consider, that reason is only perception and judgment, that perception is much limited

in regard to many of the phenomena of nature, and that judgment, in reference to many objects upon earth, thus with difficulty perceived, is often defeated, and much embarrassed in deciding on the force of the different kinds and degrees of evidence—but "the things which are in heaven, who hath searched out?"

Though the doctrines of faith are to be judged not at the tribunal of philosophy, but at the tribunal of revelation, they are not the less true, because they are mysterious. Their obscurity is owing to our imperfection, which should be no bar to our assent; for the truths of revelation are not proposed for us to know on the conviction of reason, but to believe on the authority of "the Spirit who beareth witness, because the Spirit is truth." Such is the logical reasoning of St. John, and the reasoning of St. Paul is very consonant: "the things of God knoweth no man, but the Spirit of God[36]."

[36] "Our faith," observes the learned Stillingfleet, "in relation to these mysteries, stands on a twofold basis: first, that the being, understanding, and power of God do infinitely transcend our own, and that consequently, he may reveal to us matters infinitely above our reach and capacity.

Derived from a divine original, and founded upon a principle which is infallible, as on a rock which the power of men and angels cannot move or subvert, this supernatural truth is theologic; and the faith, by which it is embraced and entertained, relating to the Son, who "brought life and immortality to light by his gospel," is the Christian faith, invisible in its object, transcendent in its power, and immortal in its end.

All other kinds of truth, springing from the evidence of external and internal sense, lie more immediately before our view, to direct our way through this material scene of things, in which we are fitly said "to walk by sight." The kind, which is to conduct us from this visible world into the world of spirits, is derived from "the evidence of things not seen," and we are accordingly commanded, "to walk by faith and not by

Secondly, that whatever God hath revealed is indubitably true, though we may not fully comprehend it; for it is an indubitable first principle, that God cannot and will not deceive man by his own revelations."—Orig. Sac. book ii. chap. 8. See also Stewart's Elements, vol. ii. chap. 1, sect. 2, 3, on the "Fundamental Laws of Human Belief."

sight."—But, however invisible in its object, faith is transcendent in its power, embracing intuitively and at one grasp all the mysteries of religion, however dark and incomprehensible. Independent of the faculties of man, it is devoted solely to the glory of God[37].—And this transcendent virtue is exalted to still higher consideration, because it leads us to the prize of immortality.—"He that believeth on the Son hath everlasting life; and he that believeth not the Son shall not see life; but the wrath of God abideth on him[38]." In this grand catastrophe and consummation of human nature, faith, no longer militant, will become triumphant.—"Who is he,"—proceeds the beloved apostle in terms of confidence and triumph,—"that overcometh the world, but he who believeth, that Jesus is the Son of God[39]?"

Such is the nature and constitution of Christian faith, which is the "evidence of things unseen;" and which when "it worketh

[37] Quantum mysterium aliquod divinum fuerit magis absonum et incredibile; tanto plus credendo exhibetur honoris Deo, ut sit victoria fidei nobilior.—Bacon. De Augm. Scient. lib. ix. cap. 1.

[38] John, iii. 36. [39] 1 John, v. 5, 6.

by love," or Christian charity, in the production of good works, as its genuine fruits, forms the sole and indispensable condition of revealed religion. It is through the obedience of faith, that man, the moral agent, will be justified of God, the moral Governor, redeemed, ransomed, and rewarded,—" having fruit unto holiness, and the end everlasting life."

This supernatural principle is remote from all others, the truths resulting from it are different from those of every other kind, and result in a different way. But this faith, which transcends every other species of assent, was unknown to Aristotle, whose Dialectic was for ages the impregnable fort of all probable reasoning, the umpire of all learning, and the high tribunal, at which, the pretensions of all truth were to be tried. To punish the vice and obstinacy of mankind in different periods of the world, it pleased " the high and lofty One who inhabiteth eternity," to permit a cloud to be drawn across the pure light of heaven, by which it was long obstructed and obscured.

If that great philosopher had been blest

with the privilege of beholding the glorious gospel shedding its rays over the Athenian provinces; or had he partaken, with the righteous Abraham, the distinguished favour of seeing, through type, vision, or scenical representation that future day, in which its divine founder sealed with his blood its immortal truth; doubtless the patriarch and the philosopher would have rejoiced together[40]. Instead of that absurd and unphilosophical use of his works, which has been made in almost every age by his servile followers; in the enlargement of his vigorous and comprehensive mind, he would have discarded the definitions, the general propositions, and the formal syllogisms of his useless Organon, to embrace immediately this theologic principle, founded in the wisdom, and established on the veracity of God[41]. Instead of disputing the stupendous mysteries resulting from this principle, or ever calling them in question, he would have placed them universally on the same divine inscrutable basis, and have exclaimed

[40] John, viii. 56. [41] 1 Cor. i. 24.

at once,—" Lord, I believe; help thou mine unbelief[42]!" Or had this virtuous native of Stagira been admitted with Paul of Tarsus to the humiliating spectacle of the various opposition, which his Organon, in the hands of men of narrow and contracted genius, enslaved by terms and stupified by forms, would occasion by its use and abuse to the truths of Christianity, or rather to their reception (for against them the gates of hell cannot prevail), and to the establishment of their immortal principle; had he foreseen the great injury it would effect, in future times, on the wisdom which is from " above, which is first pure[43], and then peaceable;"—by " ministering foolish questions[45]," and fomenting rancorous disputations[46]—the philosopher would have lamented with the apostle these profane mixtures of

[42] Mark, ix. 24. [43] James, iii. 17.

[45] 2 Tim. ii. 23.

[46] Eodem etiam spectant eorum commentationes, qui veritatem Christianæ religionis ex principiis et auctoritatibus philosophorum confirmare haud veriti sunt—divina humanis impari conditione permiscentes.—Bacon. Nov. Org. lib. i.

[46] Qui cum theologiam in artis formam effinxerint, hoc insuper effecerunt, ut pugnax et spinosa Aristotelis philosophia corpori religionis immisceretur.—Bacon. Nov. Org. lib. i.

philosophy and vain deceit, and have laboured with him to guard mankind against them. Could he have heard certain sophists and syllogizers of the Athenian schools, "disputers of this world," insulting that great apostle with their ignorance and scorn—"What will this babbler say[47]?"—could he have beheld his learned commentator Simplicius, under the full light of Christianity, confirming himself in infidelity, and exulting in opposition; could he have seen the unhappy Porphyry, perplexed and entangled in the subtleties of his logic, and in the act of composing the Isagoge, abandoning his faith;—could he have conjectured, that whilst it was raising human reason above itself by persuading it of its all-sufficient power, his hypothetical system would lead it from the most solid truths into the endless maze of speculative error, and that this wild infatuation would inflame the sanguine and promising genius of a youthful emperor, and cause him to apostatize from his religion;—could his eye have reached down to these

[47] Acts, xvii. 8.

distant times, and have observed the cloud of ignorance and superstition, continuing to envelop the greater part of the Christian church, which the evasive versatility of his Dialectic was calculated to thicken and confirm, rather than dispel[48]; or could he have seen that part, which boasts of reformation, still shackled in the pursuit of theologic truth by its sophisms and useless disputations, and by keeping men entangled, from age to age, in the thorny wilds of school-divinity—could he have foreseen these hurtful consequences—instead of committing this portion of his works to the care of the too-faithful Theophrastus, the master and the scholar would have sacrificed them together upon the sacred altar of truth. Above all could he have read, in the Book of life, that heavenly precept—"Love your enemies,"—he would have expunged the con-

[48] "The court of Rome well knew the importance of the school logic in supporting their authority; they knew it could be employed more successfully in disguising error, than in vindicating truth: and Puffendorf De Monarchia Pontificis Romani scruples not to insinuate, that they patronised it for this very reason."—Beattie's Essay on Truth, p. 360.

trary proposition, by which his Ethics are disgraced, as militating against every principle of humanity and sound religion. He would have improved, or abandoned his moral system, as superseded by one infinitely more perfect. His theology, in which he excelled all philosophers before him, if Plato be excepted, would thus have soared on a sublimer wing to the heaven at which it aimed[49]; whilst he would have been content to sit down as a little child at the feet of Him, "who spake as never man spake[50]."

[49] See the eighth book of his Metaphysics, and the last chapters of his Physics.

[50] On the various subjects of this chapter, consult Bishop Butler's Analogy, Bishop Brown's Divine Analogy, and his Procedure and Limits of the Understanding, Locke's Reasonableness of Christianity, Sykes's Connexion of Natural and Revealed Religion, Chalmers's Bridgewater Treatise, Sumner's Evidence of Christianity, &c.—*Editor.*

CHAP. III.

THEOLOGICAL REASONING.

HATH reason, then, no concern whatever in the establishment of faith? and is faith, the ground of theologic truth, that blind virtue, which mortals are to embrace without the consent of the understanding? —To this query we return the following answer.

Although reason has no *direct* concern, either in the act of forming the principle of theology by an inductive process, or in deducing from it the truths of religion by any mediate operation, or in proving these truths from any grounds in nature: yet have the learned been successfully engaged in urging the necessity of the principle of a divine revelation, and enforcing the stupendous mysteries which that revelation

contains. These are topics, which have been successfully urged by the advocates of Christianity, from the natural infirmity of the intellect and the will of man, from the universal fact, verified in experience, by which as moral agents, they are found disqualified both to know and to do the will of their moral Governor[1]. Without such a divine interposition, the connexion between God and his accountable creatures would be practically dissolved, and the original intention of their Creator be virtually suspended. And whilst, in such indirect and collateral conclusions as are founded upon facts, reason may employ her noblest faculties; the truth of the holy Scriptures, which display these

[1] "Natural reason, contemplating the attributes of the Deity, discovered to us, that when human abilities alone are too weak to support us in the performance and discharge of moral duty, God will lend his helping hand to aid our sincere endeavours, by enlightening the intellect and purifying the will, by impressing upon the first all the speculative and practical truths, which the divine principle of faith contains, and by purifying and supporting the will in the embracing and executing that moral righteousness, the foundation of that faith by which men are to be justified, and to which is annexed the enjoyment of eternal life in happiness.—Warb. Div. Leg. book ix.

See Bp. Gibson's Second Past. Let.

facts, may receive light and confirmation from these conclusions. But though in opposition to the fictions and hypotheses either of deists or enthusiasts, reason may lend her modest aid, in support of the general argument; to judge of the necessity rests solely and properly with God; who, as in creating man at first, so in giving to man his revelation afterwards, has acted from the purest motives of wisdom, prompted by love — attributes which transcend all human thought and comprehension.

To judge of the fact, whether such a revelation, containing such a principle, with its mysteries and credentials, were actually sent from God and received by men, by examining the evidences and circumstances which accompanied it, the time, the place, the manner in which it was delivered, the form in which it descends to us, or in what it is contained, together with its particular substance and burden, and how every part is to be rightly understood—these are the various and extensive topics which constitute the important subjects of theologic rea-

soning, and the proper study of scientific divinity.

This extensive body of reasoning is what a faith which is rational, like that of our holy religion, not only admits, but actually requires. It forms the indispensable duty of all who have leisure and ability for the search, with all diligence, humility, and perseverance to pursue this reasoning. It is the proper and more especial business of those, who for the instruction of Christians, devote themselves to the exalted and honourable profession of divinity, though it should be in a certain degree, the employment of all, who "would give a reason of the hope that is in them[1]." Nor need mortal man complain, that the use of his reason, in the concerns of his religion, is either precluded or superseded by the still higher prerogatives of faith. These various topics of inquiry and learning open fields of investigation, which may afford ample scope for the ablest exertions of the understanding, to the latest period of human existence.

[1] 1 Peter, iii. 15.

A summary sketch of the grounds and method of reasoning in theology, and of the interpretation of the Holy Scriptures, general and particular—subjects which constitute the study of divinity in its various and important branches,—is all which the comprehensive plan of these lectures permits me to attempt.

Sect. I.

The Grounds of Reasoning in Theology.

THE principle of theology itself, as well as the truths which it contains, lying beyond the verge of human knowledge, and being totally different from all other principles, and kinds of truth; the specific reasoning, which is adapted to the province of Divinity, will be found, both in its grounds and method, different from every other, in the aggregate.

Wherever general principles are concerned, the reasoning is first *to* the principle, and then *from* the principle; excepting in the

mathematics, where it is chiefly, if not entirely, the latter[1]. In theology, it has been observed, there is no mediate process of reason, by which the truths of religion can be deduced from the principle. It may, however, be properly said, that in divinity, we reason *to* the principle; but from grounds of a different nature, and in a method totally different from that we use in all the other sciences.

The supernatural principle, which is the ground of theologic reasoning, is not established on an induction of particular truths, by which it is made universal, and from which universality its doctrines are entitled to our faith:—but "Faith cometh by hearing, and hearing by the word of God[2]." In this sentence, the apostle has stated the principle itself, the testimony of God, and the means through which we receive it, *viz.* hearing; and has laid down the end or effect which it is calculated to produce, *viz.* the conviction of faith. The principle is a divine fact, to be proved from the various means by

[1] See vol. i. part i. sect. 1. [2] Rom. x. 17.

which it was confirmed, and is conveyed to us. These are the just grounds of theologic reasoning, and these can alone warrant and support a reasonable faith.

Reasoning therefore in theology, respects the means through which the light of revelation was established in the world, whereby the divine testimony was communicated and conveyed down to us in these distant ages. According to the method which it pursues, we shall take the Bible in our hand, which professes to contain this word of God, and trace its history through the intervening ages, and countries, and the persons of its editors, to the time, place, and persons, in which, and by whom it was originally written. This will prove its authenticity.—From the proof of its authenticity, reason may proceed to evince its divine authority, by examining all those various tests and marks of a supernatural commission, which are every where inseparably interwoven with its contents; and which are called the *external* evidences of religion. This authority reason may further confirm, by examining the moral import of its comprehensive argument—the *internal*

evidence of its divinity. By these which are the *means*, reason will be conducted safely and logically to the infallible principle, the word or testimony of God, in which faith immediately finds her repose and end. It will then remain for reason only to interpret the meaning of that mysterious book in which they are recorded.—Or, reason may perform this sacred task, by pursuing the inverse of this order,—ascending, through the internal and external evidences of this authority, to the authenticity of the Holy Scriptures, and thus forming the conviction of our faith on the same firm and solid grounds.

In conducting reason down the descending line, the different grounds on which she argues, the different offices which she performs, or the method she pursues, our train of thought will be something like the following:

All truth is born of God, and as every dispensation of it, whether natural or revealed, proceeds from him, all its parts, however different they may be in kind, are consistent and correspondent members of one

perfect whole. Thus truth is evermore the way to truth; the less leading to the greater, the inferior to the superior, in a regular but sublime gradation. That the knowledge and certainty of one part, is the only right road to the knowledge and certainty of another, forms the cardinal and fundamental maxim of all sound logic. As, from first and intuitive principles of external and internal sense, human truths are derived of different kinds; so, by a sublimer effort, from these human truths, as new grounds or principles, reason ascends to those which are divine. Such is the grand connecting link between natural and supernatural knowledge, annexed to the footstool of God, from which depends that golden chain, by which, reason ascends from earth to heaven.

This method of conveying divine truths into the minds of men, by associating them with truths of which they were previously possessed, and these the most natural and familiar, was universally adopted by our Lord, who never stooped to the cumbrous formalities of a useless logic. Instead of defining or syllogizing, we find him perpetually

illustrating and explaining spiritual and heavenly things, by the analogy and similitude of those which are temporal and earthly. Of this conduct of our Divine Master and instructor, I shall here only adduce one example. It illustrates that divine authority on which the principle of theology is logically based, and thus lays down those fundamental grounds, from which we are enabled to reason in divinity.—On proclaiming to the pharisees and scribes, that he was "the light of the world," and that whosoever followed him should not "walk in darkness, but have the light of life;" in proof of this spiritual and important truth, he does not run into speculative argument or metaphysical discussion, which his hearers could not possibly understand; but he appeals to a public fact, which experience and long usage had rendered familiar to their understanding:—"It is written in your law, that the testimony of two men is true;" from this two-fold testimony, he directly argues to the similar truth of his divine commission: "I am one that bear witness of myself, and the Father, who hath sent me, beareth witness of

me[3]."—But, in his answers and expressions, as more was generally meant than met the ear, we shall find these two heavenly witnesses, in the different evidences which they adduce, in support of this new light of the world, laying these two different and essential grounds of theologic reasoning:

I. *The Internal Evidence.*

In the same conference with the Jewish doctors, our Lord puts this pointed and decisive question; "Which of you convinceth me of sin, and, if I speak the truth, why do ye not believe me[4]?" He is in scripture pre-eminently and expressly styled "the Word," which Word consists of the doctrines which he taught,—of which he was himself the subject; and of the precepts which he delivered, of which he was himself the pattern. "Which of you,"—said he, in this important view of himself,—"convinceth me of sin?" For the truth of what he said, of his doctrines and of his precepts, he appealed,

[3] John, viii. 17, 18. [4] John, viii. 46.

by this pointed question, to that moral truth, which his hearers had acquired in a natural way, and were convinced of from the principle of internal sense. He draws a proof of his own divine mission, from the eternal difference of good and evil, virtue and vice, written by the hand of God on the hearts of men, to be among other uses, a familiar and standing witness of his Son. He infers, and teaches all men to infer, that, if upon examining his Word ("the brightness of his glory, and the express image of his person[5],") by this native unerring witness, it be found perfectly consistent with their best ideas of the goodness of God, and superior to their best ideas, it must, in all reason, be also consistent with the sister attribute of his Truth, and thus far worthy of all acceptation:—"And if I speak the truth, why do ye not believe me?"

Thus it is, by the evidence of moral truth, deduced in a natural way, from the internal principle of conscience[6], that reason is enabled to form a decisive judgment of the

[5] Heb. i. 3. [6] See vol. i. chap. vi. sect. 2.

subject matter of revelation; which is therefore, if not properly to be called a principle, a sufficient ground of solid reasoning in matters of religion, and this we call its internal evidence. On this ground, let the theological student exert his keenest powers in accurately and minutely sifting and examining the moral departments of scripture. In the discharge of this duty, the syllogistic logic with all its parade of modes and figures will prove of little service. It may puzzle and perplex, it will not assist him. A competent knowledge of moral science, with a sound head and a sincere heart, will form his best aid in this arduous and interesting task. Could any thing be found in Scripture, as taught or enjoined of God, which when fully understood, palpably contradicts his moral attributes, as they are discovered by the light of conscience and natural reason (which are our first, and as far as they go, true and real lights); could any thing be found, which is vicious, immoral, and sinful, opposed to his very being: he might safely conclude, that it could not proceed from Him, who is the author of good and not of evil.

But on the contrary, if the whole religious dispensation, both doctrinal and moral, display that superabundant mercy, goodness, and good-will to men, which exceed all human conception, and which must be divine, —it affords a most strong presumption, almost amounting to full and positive proof, that it assuredly came from heaven.

The doctrines of our religion, founded essentially in the unsearchable wisdom of the Godhead (to judge of which attribute of the divine nature, the whole order of intellectual beings and their relations should be taken into account), are transcendently sublime, and some of them far beyond the highest reach of our understanding to compass, or our imagination to conceive. But, to be convinced of the great mercy and goodness which they effectuate to the human race, the sole relations to be considered, are those between God and man, and these are easily and clearly to be understood[6]. These attributes, shining upon the face of the whole Christian dispensation with the benignest influence,

[6] See Warb. Div. Leg. book ix. p. 26.

discover to natural reason conspicuous marks of its divine extraction; holding out "a bright and shining light," by which we behold, in its constitution, the hand of an immaculate original. "The law of the Lord is an undefiled law, converting the soul; the statutes of the Lord are right and rejoice the heart. The commandment of the Lord is pure, and giveth light unto the eyes." This is a species of evidence, which is mixed and interwoven with the vitals of our religion, and inherent in its very substance—"The Word was made flesh and dwelt among us, and we beheld his glory, the glory as of the only begotten of the Father, full of grace and truth[7]."

Thus the perfect theory of that moral virtue, which was transcribed into the life and actions of "the Author and Finisher of our faith," is to be found in the records of the Holy Scriptures, and constitutes their first credential and foundation. Such is the order, beauty, harmony, and consistence, which pervade the whole of God's moral government,

[7] John, i. 14.

and conspire to the perfection of the heavenly system.

By this internal evidence of his word, addressed to the hearts and consciences of men, Christ was, therefore, "one who bore witness of himself," as the Divine Messenger of the new covenant[8].

II. *The External Evidence of Miracles.*

But, however necessary and fundamental this species of evidence may be to a religion, which assumes to have come from God, it is not sufficient, of itself alone, to evince the authority of a divine commission[9]. Our

[8] On the internal evidences, see Locke's Reasonableness of Christianity, Soame Jenyns, Beattie, Leland, Sumner; and, above all, carefully study and inwardly digest the profound "Analogy" of Bishop Butler.—*Editor.*

[9] "In reverence to truth, I hold myself obliged to own, that, in my opinion, the reasonableness of a doctrine pretended to come immediately from God, is, of itself alone, no proof, but a presumption only, of such its divine original: because, though the excellence of the doctrine (even allowing it to surpass all other moral teaching whatsoever), may show it to be worthy of God, yet, from that sole excellence, we cannot certainly conclude that it came immediately from him; since we know not to what heights of moral knowledge

Lord therefore appeals to another, though not more essential, more obvious and convincing test, which stamps an irrefragable seal on the heavenly embassy,—" And the Father who hath sent me beareth witness of me."

To call the attention of men to this latter evidence, as more obvious to their apprehension, and in itself more palpable and direct, he uses this strong, though indirect language: " If I bear witness of myself, my witness is

the human understanding, unassisted by inspiration, may arrive. Not even our full experience, that all the wisdom of Greece and Rome comes extremely short of the wisdom of the Gospel, can support us in concluding, with certainty, that this Gospel was sent immediately from God. We can but doubtfully guess, what excellence may be produced by a well cultivated mind, further blessed with a vigorous temperament, and a happy organization, of body. The amazement into which Sir Isaac Newton's discoveries in nature, threw the learned world, as soon as men became able to comprehend their truth and utility, sufficiently shows, what little conception it had, that the human faculties could ever rise so high, or spread so wide.

" On the whole therefore we conclude, that, strictly speaking, there is no ground of conviction, solid and strong enough to bear the weight of so great an interest, but that which rises on miracles, worked by the first messengers of a new religion, in support and confirmation of their mission.

" That is, miracles and miracles only, demonstrate that the doctrine, which is seen to be worthy of God, did, indeed, come immediately from him."—Warb. Div. Leg. book ix. chap. 5.

not true[10]," (being only the "testimony of one," and therefore insufficient of itself), proceeding in the same peremptory and pointed style,—"There is another who beareth witness of me, and I know that the witness which he witnesseth of me is true. The works that the Father hath given me to finish, even the works that I do, bear witness of me, that the Father hath sent me; and the Father himself, who hath sent me, hath borne witness of me[11]."—"If I do not the works of my Father, believe me not. But if I do, though ye believe not me, believe the works; that ye may know and believe that the Father is in me, and I in him[12]."

This second witness of his mission to which Christ appealed, which he calls *works*, were the most plain and obvious facts, intimately connected with his doctrines and precepts, as collateral vouchers of their divinity. After estimating the internal or moral evidence, it is the next office of reason to canvass the pretensions of revelation upon the ground of

[10] That he speaks indirectly, is obvious from another passage in St. John's Gospel, where speaking directly, he contradicts these words—"Though I bear record of myself, my record is true."—viii. 14.

[11] John, v. 31, 32, 36. [12] John, x. 37, 38.

these external concomitant facts. These are usually called "the external evidences of Christianity."

The nature of facts, as a species of truth, was analysed in the first volume of this work, to which I must now recall the attention of my reader. They are those human truths, by which the author of our religion leads men immediately to the belief of its divine mysteries. This species of truth was found to be more direct and obvious than any other; open to the apprehension, and familiar to the minds of all men; resulting immediately from the individual objects presented to the eye, the most perfect of the senses; springing from effects themselves, without attention to their remoter causes; and requiring nothing for their proof, but the coincidence of transaction, person, time, and place, or for their conviction, but that the senses be sound, competent, and well-informed. And from their frequency and incessant occurrence in the ordinary course of human affairs, facts are not only most obvious and familiar in themselves, but also in their secondary and efficient causes[13].

[13] See vol. i. p. 203.

These are the proper topics for the theological student to canvass and examine, in this important department of divinity—but in which, he can derive little assistance from the logic of the schools. The inductions of facts are not to be determined by modes and figures. It is here, that the "Short Methods of Leslie with the Jews and Deists" will afford more assistance, than the entire Organon of Aristotle.

The facts which our Saviour laid down, as the original ground of evidence, by which men might be convinced of the truth of his religion, were as palpable to the senses, and easy to the apprehensions of all men, as it is possible for any facts to be. They were witnessed by men of the most artless, simple, and unambitious character, yet who were very slow and cautious in giving their assent, and who could gain nothing from yielding to their convictions, but the hatred, derision, and persecutions of their cotemporaries[14]. The facts themselves, however, differ from the most common and ordinary that occur in the natural course of things,

[14] See Paley's Evidences, vol. i.

only in one particular; which difference was as clearly to be apprehended by the plainest conception, as the facts themselves. And it is this important difference to which they owe their evidence; for whereas other facts are the effects of common and ordinary causes, these were still more obviously the immediate effects of a most uncommon and extraordinary cause.

From the operation of this uncommon and extraordinary cause, not producing new phenomena in a natural way, but doing wonderful and particular acts, and producing wonderful and peculiar effects, in a supernatural manner; these facts, appointed as the concomitant proofs and evidences of the religious dispensation, were called *signs*, *powers*, or *miracles*. They were, indeed, such "works as no man can do, except God be with him," whose all-wise and perfect nature could not employ such stupendous means to sanction a delusion, or to impose on his moral agents; but to confirm and establish the most important and beneficial truth.

These "signs" which were done by Jesus,

in the presence of his disciples, however plain and obvious to the senses of the spectators, were like all other facts[14] "transient and confined to time and place." To keep up their memory and effects, they were therefore written and recorded by their first witnesses, that others might believe[15].

These miracles, though new and different from the ordinary and uniform experience of men, and the common effects of common causes, and on that account the less credible in themselves; yet, being the only adequate credentials which could confirm to men the testimony of God and the divine commission of his Son, and absolutely indispensable to the ends of a dispensation so important as to involve the happiness of the human race, derive a credit both from their singular necessity, and the singular importance of their final cause. When thus supported by human testimony sufficiently authentic, they are entitled to the belief of all future ages[16]. They were also pronounced and declared by

[14] See vol. i. p. 196. [15] John, xx. 31.

[16] "A miracle, even when best supported by human testi-

their author, the person who was invested with the supernatural power of performing them, and who communicated to others the same power, to be expressly given as the standing test, the broad seal, of his divine

mony, needeth to be still further qualified, ere it can deserve credit of a rational believer: namely, that it be so connected with the system to which it claims relation, as that it seem to make part of it, or to be necessary to its completion.

"It is otherwise in facts acknowledged to be within the verge of nature and human agency. Here, all that is wanted to recommend them to our belief, is the testimony of knowing and honest witnesses.

"While in pretended facts beyond the verge of nature and human agency, such as those we call miraculous, much more is required when offered to our belief. The control and arrest of the established laws of nature, by the God and Author of nature, either mediately or immediately, is a thing which common experience hath rendered so extremely improbable, that it will, at least, balance the very best human testimony, standing unsupported and alone. And why? Because ordinary facts carry their causes openly and manifestly along with them; or if not so, yet none are required, as we are convinced their causes must be intrinsically there. But in facts assumed to be miraculous, the immediate efficient cause is extrinsical; and therefore leaves room for doubt and uncertainty: or rather, when, in this case, men perceive no cause, they are apt to conclude there is none; or, in other words, that the report is false and groundless. So that when the whole evidence of the fact, deemed miraculous, is solely comprised in human testimony, and is in its nature contrary to uniform experience, the philosopher will at least suspend his belief.

"But though in all miracles, that is, in facts deemed miraculous, the efficient cause continues unknown; yet, in those

commission, to which they were so indispensable; and to complete their attesting power, they were essentially and inseparably connected with the most important part of the dispensation, and of the truths them-

which our holy religion seems to recommend to our belief, the final cause always stands apparent. And if that cause be so important as to make the miracle necessary to the ends of the dispensation, this is all that can reasonably be required to entitle it to our belief; when proposed to us with the same fulness of human testimony, which is sufficient to establish a common fact: since in this case, we have the moral attributes of the Deity to secure us from an error so fatal to our welfare.

"And the confining our belief of miracles within these bounds, wipes away (as I conceive) all the miserable sophistry of our modern pretenders to philosophy, both at home and abroad against miracles, on pretence of their being contrary to general experience, in the ordinary course of things. At least, the true philosopher [Mr. Locke] so thought, when he made that strict inquiry into truth, towards the conclusion of his immortal work.—Though common experience, (says he) and the ordinary course of things have justly a weighty influence on the minds of men, to make them give or refuse credit to any thing proposed to their belief; yet there is one case, wherein the strangeness of the facts lessens not the assent to a fair testimony given of it. For where supernatural events are suitable to the ends aimed at by Him, who hath power to change the course of nature, then, under such circumstances, they may be fitter to procure belief, by how much the more they are beyond or contrary to ordinary observation. This is the proper case of miracles, which well attested, do not only find credit themselves, but give it also to other truths, which need such confirmation."-- Warb. Div. Leg. book ix. chap. 5.

selves[17]. "The works, which the Father hath given me to finish, the same works that I do, bear witness of me."—"If ye believe not me, believe the works."

To extend their attesting power to all future ages, these miracles were inseparably interwoven with the most important parts of the divine dispensation itself; that both might be recorded together, and so intermixed, that the truths could not be heard, or read, without the evidence, nor the evidences without

[17] "We come next to that second species of miracles whose subject makes so essential a part in the economy of the gospel; that, without it, the whole would be vain and fruitless. The first and principal of this species is the miracle of Christ's resurrection from the dead. 'If Christ be not raised (saith St. Paul), your faith is vain; you are yet in your sins.' And St. Peter uses the same argument to show the necessity of his Master's resurrection—'God (says he) raised him up, having loosed the pains of death; because it was not possible that he should be holden of it.'—If Christ himself was not seen to enjoy the fruits of that redemption, which was of his own procuring, what hopes could be entertained for the rest of mankind? Would it not have been too plausibly concluded, that this expedient redemption had proved ineffectual by Christ's not rising? So necessarily connected (in the apostle's opinion) was the miracle of our Saviour's visible resurrection with the very essence of the Christian faith—

"Thus, we see, the miracle of the resurrection made a necessary part of the integrity of the gospel."—Warb. Div. Leg. book ix. chap. 5.

the truths, with which they are inseparably connected. The forgiveness of sins was one of the most important truths of the heavenly dispensation; and on seeing the faith of the paralytic, who was let down upon his bed through the roof, our Lord pronounced that his sins were forgiven him. This high act of his divine authority, raising the astonishment of his hearers, the Scribes and Pharisees; to convince them of its truth, he immediately coupled it with a miracle, which he purposely transacted before their eyes, that, from seeing the one act of supernatural power, they might be convinced of the other. Knowing, as he did, their secret thoughts upon the occasion, he asked them this pointed question—"Whether is easier to say, Thy sins be forgiven thee; or to say, Arise and walk?" And then, that from seeing the miracle, they might be convinced of his power of forgiving sins, he said to the paralytic, "Arise, take up thy bed, and go unto thy house;" which the man joyfully did, glorifying God[18]. In this instance, as in many others, the miracle

[18] Luke, v. 18—25.

sprang out of the doctrine which it was immediately given to attest; and the doctrine was fully confirmed by the miracle; since he who was empowered to perform the miracle, could not teach what was untrue.

But to complete their attesting power, some of these miracles were not only inseparably interwoven with the truths, but formed an essential part of the truths themselves; as in the instance of our Lord's resurrection from the dead, which constitutes a necessary part of the gospel dispensation, as the full and final test both of the forgiveness of sins and the resurrection of the dead—the two cardinal doctrines of the Christian faith. Thus, whether from the emergency of the case, the authority of the agent, or their own self-importance they derive the strongest and most befitting credibility.

Such is the plain and easy apprehension of the nature and use of miracles, in their connexion with the fundamental doctrines of the Christian faith.—But some losing themselves in the mazes of a sceptical philosophy, possess the unhappy talent of puzzling the plainest things; and what is a greater evil,

they allure others into the toils in which they have been taken; who vainly struggling to get free, entangle themselves the more, till the whole becomes a maze of perplexity and error.

By this external evidence of works supernaturally performed, "the Father also, who had sent him, bore witness of him."

Founded on the plainest testimony of the internal and external senses, thus clear and convincing are these grounds of evidence. The first, are inherent in the very vitals of the religious dispensation; the other, essentially connected with it. To both conjointly, our Lord appeals as evidence of the truth, which he brought down from heaven, to become the "light of the world," in that concise and expressive declaration,—"I am one who bear witness of myself, and the Father, who hath sent me, beareth witness of me." And, when the blind obstinacy of his prejudiced and perverted hearers closed their eyes against the blaze of this twofold light; with that dignity and sublimity of character which distinguished all his deeds and words, he condemned their aggravated blindness, in this

summary and decisive sentence—"And now have they seen and hated both me and my Father[19]."

These two grounds of reasoning, from external and internal evidence, though essentially different, are conjointly indispensable to the establishment of that divine testimony, which is the infallible principle of all revealed religion, mutually supporting and supported by each other—the internal purity of the doctrine proving, that the miracle which accompanied it was wrought of God; and the divine power of the miracle proving, in its turn, the divinity of the doctrine[20].

[19] John, xv. 24. On the external evidence, see Lardner, Paley, Bishop Douglas's "Criterion," &c.—*Editor.*

[20] "So little being known of the powers of created spirits superior to ourselves (some of which we are taught to believe are beneficent to man, and some averse), all that we can conclude of miracles, considered only in themselves, is that they are the work of agents, able in some instances to control nature, and divert her from her established course. But whether this control be performed immediately by the God of nature, or by agents acting under his direction, or on the contrary by malignant agents, at enmity with man, and, for a time, permitted to indulge their perverse and hurtful purposes, cannot be known, but by the nature of that doctrine, in support of which the pretended miracles are performed. The conclusion from this, is, that the miracles are to be verified by the doctrine. But since we know so little of the

III. *The Evidence of Prophecy.*

In addition to the supernatural power of miracles, exercised by Christ and his apostles, for the rational foundation of his religion: in the same interesting conference with the Jewish doctors, our Lord appealed to another ground of external evidence of a different and more complex kind, in which the same transcendent power was as conspicuously, and still more wonderfully displayed. —"Search the Scriptures, for in them, ye think ye have eternal life; and these are they which testify of me[21]."

Such is the evidence of *prophecy*, founded

extent of the human understanding, we cannot determine of the true original of the doctrine proposed to our belief, till it be supported by miracles: now the conclusion from this is, that the doctrine is to be verified by miracles.

——"In this there is no fruitless return of an unprogressive argument, but a regular procession of two distinct and different truths, till the whole reasoning becomes complete. In truth, they afford mutual assistance to one another; yet not by taking back what they had given, but by continuing to hold what each had imparted to the support of the other.

"On the whole, we conclude, that if any messengers ever wanted the credentials of miracles, they were the first messengers of God in the revealed mystery of the gospel."—Warb. Div. Leg. book ix. chap. 5.

[21] John, v. 39. Compare Rev. xix. 19.

on a natural truth, which is evinced by the experience of men in every age—That the knowledge of future contingent events is beyond the reach of all human foresight; and consequently, that when the prediction of such events is verified by facts, a divine interposition must obviously have been made for some important purpose. To attest the truth of a supernatural revelation was frequently declared by our Lord himself, and the other illustrious persons who were favoured with this divine gift, to be that important purpose; nor can we doubt the truth of this declaration, when made by those who were commissioned with the power, and intrusted with the means.

The evidence of prophecy is of vast variety and extent, though connected in one marvellously consistent chain. It has accompanied the dispensation of theologic truth, from the earliest ages before the personal advent of Christ; in whom, as in a centre, the whole was united. It is still extended and enlarged by him and his apostles, so as to accompany this truth through succeeding ages with its attesting power, even to the end of the world.

The vast extent of this evidence from Adam to Christ, precludes even the most distant suspicion of its being the concert or contrivance of man; for how is it possible to conceive, that there could be a combination, among the prophets of such different and distant times? Had it been a forgery contrived by different persons, in different ages, how could they so exactly and minutely concur in one single point—"the testimony of Jesus?" This is a manifest impossibility, and most strongly proves, that they were all inspired "by one and the same Spirit." Such evidence, for these reasons, St. Peter thought stronger than that of miracles derived from the outward senses. It were easier to suppose that the senses of the apostles might have been deceived, than that Adam, Abraham, Moses, David, and St. John could have concerted together[22].

This is a most fruitful and germinating branch of theological study, in which the learned divine will meet with an extensive and sublime employment. This species of external evidence displays the wondrous skill and

[22] See 2 Pet. i. 16—21.

profound contrivance of its author. Its events are connected with each other, and distributed through all ages, to the termination of the whole religious scheme; yet so involved in darkness, that the most penetrating eye cannot foresee them, till they eventually come to pass. The powers of the human mind are then lost in astonishment, at their exact correspondence with the predictions. Meanwhile, the works of the most eminent writers on prophecy afford striking proofs of this supernatural contrivance. Their most sagacious interpretations are perpetually contradicted by the succession of events. They thus evince the impenetrable veil which overhangs unfulfilled prophecies—but whilst they discover their own fallibility, they preserve attention to the general argument, and thus keep alive the force of its evidence. In this field of study, the office of the theologist is difficult and delicate. It does not consist in anticipating events, in which his imagination will lead him into a labyrinth of error; but rather, in studying the language of prophecy, and attending, with a watchful eye, to the history of events and changes, as they succes-

sively occur, and thus to classify events with their predictions, when they are found clearly to correspond. But to expatiate in this field of prophecy, would extend these lectures far beyond the limits of the plan prescribed.—Yet we may incidentally observe, that it is by induction, not by syllogism, such studies are to be prosecuted.

With one or other of these external evidences, the Christian church hath been supplied, according to its different circumstances and occasions, as they were best adapted to the purposes and progress of its dispensation. Miracles, striking immediately upon the senses, were best calculated for the first planting of a new religion; but they could not be continued through future ages. By being perpetually repeated, they would in time have lost their very nature, and consequently their evidence. When miracles began to be withdrawn, prophecy began to operate, which could not produce an immediate effect on the first witnesses, as requiring time, after its enunciation, for its accomplishment. It was thus prepared to become their substitute,

and is, on that account, styled by St. Peter "a light shining in a dark place." With us, consequently, in these later ages, it is the "surer," and more lasting evidence. Whilst we have miracles only on record, losing perhaps something of their force by time; we have prophecy, in some part of its course, in the act of completion, and growing more and more convincing, till by the germinant luxuriancy of its branches, and the gradual ripening of its fruit, its force becomes irresistible.—It is thus, that prophecy is gradually converted into history.

By this divine arrangement, "the sovereign Master, who no less manifests his constant presence to the moral, than to the natural government of the world, has been graciously pleased to give to these later ages of the church, more than an equivalent for what he had bestowed upon the earlier; in beginning to shower down on his chosen servants of the new covenant, the riches of his prophecy, as the power of working miracles abated—and hence, the wisdom of the divine Dispenser is still further seen, in making prophecy, not only the strongest, but the last and con-

cluding evidence of a religion, which, as it was the conclusion of the whole scheme of revelation, so, having (as it should seem) the largest portion of its course to run, that species of evidence, which does not lose, but gain strength by time, was best fitted to accompany it, to its utmost period[23]."

As miracles formed a necessary supplement to the moral evidence, so this vast chain of prophecy, fulfilling and to be fulfilled, confirms the truth of those miracles, in which it originated, and whose absence it supplies. How wonderfully do these predictions co-operate in one great design, forming together a magnificent and stately system, an extensive fabric of evidence, equally to be admired for the symmetry and support of all the parts, and the harmony and composition of the whole.—Such is "the unity of the Spirit;" such "the power and wisdom of God;" such "the testimony of Jesus," which is "the spirit of prophecy[24]."

[23] Warb. Div. Leg. book ix. chap. 6.

[24] On prophetic evidence, see Sherlock, Hurd, Mede, Newton, Davison, &c.—*Editor.*

These external evidences, by which the divine testimony of the Bible is established, and which form the grounds of a rational faith, are not only calculated for the purposes of different men, according to the times and circumstances under which they are placed; but require a different train and method of reasoning, in their proof and authentication.

IV. *The Evidence of Types.*

There exists also a still further kind of external evidence belonging to Christianity, from the types and figures of the Old Testament, as realized in the New, and which, taken in its whole amount, is very considerable. It is a species of evidence altogether peculiar to our religion. It proceeds on the principle, that such a regular and orderly series of resemblances, carried on from Creation to the birth of Christ, could not have resulted from accident, that it denotes the finger of God, and the operation of divine superintendence. Thus the sacrifices of the Jews were highly typical of the one great sacrifice to be offered for the sins of the world. The rock, the

manna, the brazen serpent, the feasts of Passover and Pentecost, the institution of the Sabbath, the first Adam as corresponding to the second, the strong resemblance of Abraham, Moses, &c. to the personal character of Jesus,—all these types and figures betoken something quite distinct from the facts of other histories. They mark out a dispensation harmonious in all its parts, in which times, and places, and all the circumstance of individual character, are brought into correspondence with one vast design. And such resemblances, be it remembered, are appealed to in the New Testament, as forming a ground for the evidence of the truth of Christianity, and of the reality of Christ's mission; and that consequently we are fully justified, in adducing it as part of that evidence. But the great canon for the theologic student to observe is this,—that no type can be established without such scriptural authority, whilst others are to be viewed only as ornamental or instructive illustrations[26].

[26] See Conybeare's Bampton Lectures; Butler's Analogy, part ii. chap. 7; Jortin on the Truth of the Christian Religion, chap. 3.—*Editor.*

To the eye-witness of the facts, called miracles, which were performed by Christ himself, the evidence was so palpable and direct, that, where the mind was candid and well-disposed, they produced an immediate and full conviction of the whole truth of his doctrine, as the testimony of God.

To the primitive Christians, who were not such eye-witnesses, the evidence was indeed in one degree removed. Their conviction, however, flowed from the immediate report of the eye-witnesses, or at least from that report, at second hand; which testimony was indeed directly confirmed to them, by the eye-witness of other miracles,—"the Lord working with his servants, and confirming the word, with signs following[27]." In this case, reason had a very short and easy process.

In the succeeding age, when the canon of the New Testament was completing under conduct of inspiration, these evidences were confirmed by recent facts, performed in times not far remote, by persons who were known in places where the parties lived, and

[27] Mark, xiv. 20.

published by the same, in such times and places, as the original miracles had been enacted, challenging all who could to contradict them. The conviction of the early Christians was founded on the sacred writings thus recently attested, and on the inspired authority of their respective authors, which could be clearly proved. This evidence of fact and history was directly confirmed by prophecies, which were then beginning to be fulfilled, and especially by the fall of Jerusalem. In this case, reason had a somewhat longer operation, but the effect was vivid.

We, in these distant ages, exist under very different circumstances both of time and place. The era, in which the truths of Christianity were revealed, and its evidences exhibited to the world, and in which both were committed to written record, is many ages removed, and we live in countries far remote. This evidence therefore must necessarily come down to us through the protracted channel of human testimony.

But if we have not such immediate and direct external witness of Christianity, we have what may be called its *monumental* evidence,

arising from its long preservation amidst surrounding difficulties, its triumph over persecution, its moral benefits on nations, its harmony with the growth of science and civilization, and the utter improbability, that it can ever be overturned by the opposition of its enemies, or even by the infirmities of its friends and adherents; above all, we have the standing evidence arising from the Jewish history.—But this monumental evidence extends itself also into the heart and conscience of every faithful individual. It is the witness within ourselves of the truth of Christianity, resulting from its sanctifying effect on our hearts and lives. This is what the Scripture denotes, " by the Spirit bearing witness with our spirit, that we are the children of God." Thus the evidences, by which both the authority of revelation and the inspiration of the Scriptures are established, are not only calculated, as we have observed, for the use of different men in different ages, but now require a different train of reasoning from that which belonged to the primitive church.

Since we are now indebted to the testimony of men for that testimony of God

which forms the primary principle of our faith, the study of Christian theology is necessarily based upon history, which opens an extensive and laborious field of reasoning and critical discussion.

The method which reason should adopt in this extensive department of theology, consists in a logical train of historical investigation, to establish a series of important facts[28]. Now, the first fact which presents itself to the theological inquirer will be—Whether the senses of the immediate witnesses of the supernatural facts and evidences of this divine commission were sound and well-informed, clear and competent judges of truth, and subject to no fraud or imposition[29]? And to this, another will succeed as its counterpart—Whether their credit may be relied on, as faithful and honest relators[30]?—These two facts, in their joint affirmation, constitute the requisite qualification of a true witness and faithful narrator, neither deceived himself, nor intending to deceive others; without

[28] See chap. v. sect. 1, vol. i.
[29] See p. 208—210, of ditto.
[30] See p. 214—219, of ditto.

which, as a primary qualification, any history may prove either a fallacy or an imposture.

The immediate witnesses, or their immediate friends, the appointed instruments of the divine testimony in all its parts, were specially and divinely commissioned, and aided by a supernatural power, to commit the whole substance of its truth and evidence of every kind, to written record. They were also enabled, by divine assistance, to add whatever was necessary, by way of explanation, prophecy, or exhortation, to complete the whole dispensation of grace to man; that "the faith of future ages might stand not in the words which man's wisdom teacheth, but which the Holy Ghost teacheth."

Of the originals, or autographies, of this written record, forming the canon, executed under this infallible guidance, it hath pleased Divine Providence to deprive us. Having shared the fate of all such ancient originals, we have now only their copies, which have been transmittedby human means. But the Divine Wisdom has no doubt guarded this sacred deposit by the invisible eye of its especial care.

The Scriptures inform us, that Christ established his church upon earth, against which the gates of Hell should not prevail, to remain among other purposes, the standing witness of their own purity and authenticity. Upon the testimony of the church, extended and confirmed from one generation to another, we receive the Scriptures at the present day, which testimony we are to examine, as we do that of other facts, till our judgment is satisfied, without embracing them upon any authority which the church may have assumed. We are to judge of the authenticity of the Scriptures, as we would of any other writing, by examining into the plain evidence of facts, without attending to any extraneous authority. The fact is, that the canon of the New Testament was formed, while the autographs of the apostles' writings were still in existence, and their authenticity publicly and concurrently acknowledged; so that it was settled at the time, when it could be established by full evidence, and whilst the notoriety of the facts was felt by all. And as the church spread itself into so many branches, stretching into different countries, we have

received it down, from that time, in copies so universally disseminated throughout Christendom, that it was impossible to add or detract from it, or to change any part, without a general detection of the forgery by all the churches in the world. And thus the testimony of the Christian church becomes the public warrant for the authenticity of those Scriptures, which form the rule of Christian faith; as the Jewish church previously was the witness of the authenticity of the Scriptures, which form the canon of the Old Testament.

The questions which arise under these circumstances will therefore be—I. Whether the originals themselves were the genuine productions of those immediate witnesses or their immediate friends, whose names they bear.—II. Whether these productions had actually the seal of Divine Inspiration? On this decision, depends a most important and extensive subject of theological inquiry and learned investigation.—III. Whether those manuscripts and books, which contain the copies, with their ancient versions, editions, and quotations in different languages, be the faithful transcripts of the originals?

And, to conclude this preliminary department of the study of theology,—as these numerous manuscripts, translations, editions, and quotations are found, upon comparison, to differ from each other, though in no very essential points, yet in numerous particulars of smaller account; another subject of nice examination and critical judgment opens itself to the student, in an extensive collation and comparison of correspondent texts; to investigate, as far as possible, the mutilations, additions, and alterations, which may have arisen through fraud, ignorance, or accident, and by an able and impartial decision, to restore the true and genuine text[31].

Thus long and laborious is the way which leads fallible men, in these distant ages, to the infallible principle of theology. On these grounds of judgment, which form the commonest truths of common life, derived from the internal and external senses, and from the

[31] See Bishop Marsh's Lectures, and his Translation of Michaelis; Lardner's Credibility; Jones on the Canon, &c. —*Editor.*

documents of sound and authentic history (which may be considered as primary principles, from which we reason to the divine testimony, as secondary), the truth and certainty of the Christian religion are firmly built. Reason, as we have more than once observed, can only judge of evidence; and such evidences are the best, they are indeed all, which the nature of that religion, being purely divine and spiritual, separate from all human and earthly things, can possibly admit: and whatever be the opinions of men, they were thought by Him, who gave us that religion, sufficient for our information and conviction in every age. They are, in all respects, calculated to vindicate the goodness, and display the mercy of God, "whose ways are not as our ways, nor his thoughts as our thoughts;" who, whether we may be able to discern them or not, knowing himself what cause will produce the designed effect, ever employs the fittest means to accomplish the end he has in view; and who has taken especial care, in every part and under every circumstance of his revealed dispensation, that "our faith should stand,

not in the wisdom of men, but in the power of God."

By such a method of extensive and various reasoning, philosophically instituted and logically conducted, and upon such grounds, may be established a rational and sublime theology; just as, in a different province, the fabric of natural philosophy is erected upon physical and experimental principles. This is the theology, which, as the tower on a rock, may defy in every age the assaults of infidelity. After the most accurate and critical inquiry, the acutest discernment, and the profoundest learning, which have been repeatedly exerted on the one hand; after all, which the keenest acumen, the subtlest artifice, and the deepest sophistry, could object on the other, upon a subject of the greatest and most universal concern, what has been the general result?—The Christian religion has been established and confirmed, as much by the attacks of its bitterest adversaries, as by the defences of its ablest advocates. Upon these grounds it has gone on conquering and to conquer, triumphing over interest and ambition, igno-

rance and learning, friends and foes, the superstitions of popery and the false logic of the schools. Reason and sound philosophy are the allies, on whose honest and faithful service she may depend. In every age and country, civilization and science have erected their standard in her cause. They banish error and superstition, scepticism and infidelity, from her shrine; and rejoice to place that faith, which is the pure offspring of heaven, in the legitimate seat of the heart and understanding[32].

[32] On the various subjects of this chapter, consult Leland on the Advantage and Necessity of Revelation; Porteus and Ryan on the Beneficial Effects of Christianity; Millar's Bampton Lectures; Benson's and Millar's Histories of Christianity; Conybeare's Defence of Revealed Religion; Leland's Deistical Writers; Berkeley's Minute Philosopher; Sumner on the Creation, &c. &c.—*Editor.*

CHAP. IV.

THE STUDY OF THE HOLY SCRIPTURES.

WHEN, by establishing the infallible principle of theology, the testimony of God, that sacred fountain from which the mysteries of religion spontaneously flow, reason has cleared her way to the foundation of our most holy faith; the treasures of the sacred volume still remain to be gathered with diligence, and preserved with care, and to be so faithfully and plentifully distributed among men, that they may be enjoyed by all, who are willing to embrace and to improve them, in the readiest and most effective manner. This opens another field for the exercise of reason in the province of theology, in which the devout student will find additional and different employment.

We are thus brought to the second general

object of inquiry, viz. the proper study of the Bible.

The Holy Scriptures are the sole repository of all the mysteries of religion, doctrinal and moral, comprising the whole form and substance of theologic truth. They are styled "the oracles of God," speaking and declaring his will to every age and country, in a language, which though sometimes plain and express, is at others, mysterious as the truths which they contain. They constitute the sole and universal spring, whose living waters are to flow pure and unadulterated "for the healing of the nations," to the end of time. The critical study and analysis of every part present the sublimest subject of rational investigation to the mind of man.

In this portion of theology, the act of reasoning becomes an act of interpretation, in the conduct and execution of which, the deepest learning, the maturest judgment, the ablest criticism, the most extensive information, and, I may add, the purest taste, will find ample scope for their exercise and improve-

ment. But to qualify the student for the successful execution of this various and important task, his mind should be cultivated and prepared, by a general and comprehensive view of the Holy Scriptures, which should form his first and most essential study. And as, in the prosecution of every inquiry, it is of the first and greatest importance to set out in the right and straightforward road; so, by adopting that method of study, which is philosophically and logically just, we may save much fruitless toil, and be most successful in our pursuit.

That, however infinite and various in his truth, "the Lord our God is one Lord," consistent with himself and uniform in operation, and that one part of his truth is every where introductory to, and illustrative of another, is the solid foundation of that logical analogy, from which the natural system of the universe becomes a key to the moral, and by which the philosophic inquirer is enabled to explore the celestial regions. A right knowledge of the dispensation of nature will therefore furnish us with the clue, which may lead us to the right knowledge of that of

grace: and by placing them side by side, in a comparative estimate, we shall discover that the true method of interpreting the one, will introduce us to the true method of interpreting the other. "Two books or volumes of study," says our great philosopher, "are laid before us, if we would be secure from error. First, the Scriptures, revealing the will of God; and then, the creatures, expressing his power, whereof the latter is a key unto the former[1]." The display of himself, in the great volume of his works, will open to our understanding the display of himself, in the smaller, but more precious volume of his word. The economy of the one will illustrate and unfold the economy of the other, and thus the successful study of both may be conjointly prosecuted.

Impressed on every thing around, we observe, in the natural system of the universe, the power, the wisdom, and the goodness, of the Deity; they meet the eye in such bold and prominent relief, as to force themselves on

[1] Bacon. De Augm. Scient. lib. 1. See also Bishop Butler's Analogy, and Bishop Brown's Works.

the minds of the most torpid and uninformed. In addition to these convictions of the Divine attributes, the knowledge also of the general use of such things, as are necessary for the subsistence and convenience of human life, is easily attained. All the domestic and social benefits, which are requisite for the personal security and comfort of mankind, are extracted and derived with ease, from the various materials with which we are surrounded. Thus obvious is the book of nature, in its most useful pages, to the plainest understanding.—With like clearness and simplicity, the fundamental truths of Christianity are disclosed to all. The great duties of faith, obedience, and repentance, which are sufficient to "make men wise unto salvation," are plainly and distinctly taught in almost every page of the sacred volume; whilst every moral virtue and obligation is inculcated with a clearness and simplicity, to which all uninspired morality must yield. —So openly hath the universal Father dealt with all men in both his dispensations; leaving nothing concealed, which is necessary or expedient for the instruction of the

ignorant and unlearned (who in all human society must ever form the great majority), either in the use of things, which contribute to the comfort of this present life; or in that religious information and moral duty, in which, their future happiness is involved.

But, however plainly these Divine attributes may impress themselves upon the general and superficial attention of all men, or, however easily the most common use of common things may be discovered; it is only to the eye of the philosopher, penetrating by accurate and experimental observation, into the deeper recesses of nature, in the various parts of her extensive volume, that this Divine power is displayed in all its force, this wisdom unfolded in all its glory, and this goodness shines forth in all its beauty;—that all those latent causes are disclosed, which, in the mechanism of the material system, produce such various and astonishing effects. Yet is the moral dispensation, however clear and obvious in its general truths and duties, replete with far deeper and sublimer mysteries, than the natural. The volume of inspiration is professedly mys-

terious, demanding the deepest investigation of the learned in every age, particularly of those, who are appointed, by more than human authority, to be the dispensers and interpreters of that Word, which is adapted to employ their study and industry, to the end of time.

However clearly its fundamental articles may be delivered to the apprehension of all, the Christian dispensation is prophetical and parabolical in its style and character. Its particular evolution in the different periods of the world, the future fate and fortunes of the gospel and the Christian church, which are called " the mysteries of the kingdom of heaven,"—will ever remain a subject for the investigation of the ablest and most profound research.

Thus obvious, at the same time, mysterious is the God of truth in his different dispensations. Whilst both in his works, and in his word, he is so open and perspicuous, that " he who runs may read," when he is addressing the information and conviction of those, whose faculties are usefully and

honourably employed in the necessary occupations of life; this deeper investigation, either into the constitution of nature or the economy of grace, is allotted to the virtuous and vigorous exertions of the inquisitive and contemplative; to be rewarded with the high gratification of intellectual improvement, and crowned with the still higher satisfaction of communicating to others the result of their labours.

Similar and analogous as they are in their whole economy, when we are engaged in the study and cultivation of the systems of nature and of grace, similar causes will often be found to produce similar effects of ill or good success; and the right method to be pursued in one, will frequently suggest the best course to prosecute in the other.

Systems and hypotheses framed by philosophers out of their own ideas, divorced by the force of imagination from the truth of facts, were long the bane of natural philosophy, and the prolific cause of all the errors, which for centuries opposed the advancement

of physical science. Disdaining the drudgery of experiment, and the painful task of accurate inquiry and individual observation for the principles of inductive truth, philosophers were pampering their indolence and indulging their vanity in dreams and speculations of their own invention. Hence in their interpretation of nature, instead of unfolding a real world, the image of its Author, they produced a number of ideal creations, from the pregnant womb of fancy, no less diverse from each other, than equally unrelated to himself. And to keep pace with these imaginative interpreters of nature, their ingenious brethren the school divines, instead of searching the Scriptures for the truths which they every where contain, by a grammatical and truly critical, which is always a laborious, examination, were as inventively, but more mischievously employed, in erecting similar schemes of doctrine and hypothetical systems of divinity. These were as contradictory to each other, as abhorrent to the discoveries of the one Inspirer of the one true religion.

Correspondent to the genius of these visionary systems in theology and science, was

the logic engaged in their service. Logic, in those speculative ages, disdained to stoop to the laborious office of investigating truth. As imagination could more readily invent, than reason investigate, the task of discovering truth was allotted to the former, whilst the latter had only to forge artificial weapons for attack or defence. It furnished both the philosophical and theological combatant with a suit of magic armour of such dexterous contrivance, that the champions of different theories could attack or defend, with such equal success, as never to injure or destroy their opponents, and thus for ever to contend with an equal show of conquest on either side[2]. It was only just, that such easy and ingenious systems should possess such easy and ingenious dialectics. Consisting of terms of its own, to which by an

[2] Hæc inutilis subtilitas sive curiositas duplex est, et spectatur aut in materia ipsa, qualis est inanis speculatio, sive controversia, cujus generis reperiuntur, et in theologia et in philosophia, haud paucæ: aut in modo et methodo tractandi. Hæc apud scholasticos fere talis erat: super unaquaque re proposita formabant objectiones; deinde objectionum illarum solutiones, quæ solutiones, ut plurimum, distinctiones tantum erant, &c.—Bacon. De Augm. Scient. lib. i.

arbitrary, though formal definition, were annexed what ideas it pleased, without regard to the truth of facts; this scholastic logic could make every phenomenon of nature bend to every hypothesis, and distort every text of scripture to the support of any system of school divinity.

Upon such a foundation and by the help of such an instrument, was erected that Babel of the schools in philosophy and theology, which was alike the pest of science and religion; and which, for so many ages, threw its dark shade over the whole of Europe. To these misguided studies, more than to any other cause, may be attributed the continuance of the gross and irrational errors and superstitions of the church of Rome. Polemical divinity, consisting of a number of hypothetical and artificial questions, agitated on both sides with all the sophistry of disputation, and in a language, as unintelligible to a rational understanding, as that of the ancient Babel after the confusion of tongues, was the legitimate offspring of such theology and such logic. Universities adopted this art, as the main object of their study

and cultivation; in the exercise of which, instead of opening the scriptures in a just and candid interpretation; their theological disputants, by handling the word of God artfully and deceitfully, scarcely found a text in scripture, which they did not pervert and misapply, in defending their own dogmas and inventions, or in subverting those of their opponents. Instead of employing their reason soberly and discreetly to the useful purposes of theology, they contaminated its most sublime and sacred mysteries, by an impure mixture of metaphysical speculation. These fabricated questions produced an inexhaustible fund of polemical contention, (of error there is no end), and though paraded by the schoolmen, as of the last importance to religion, they were "foolish and unprofitable" at best; and so exactly descriptive of those "vain babblings, profane novelties of words, and oppositions of science falsely so called[3]," against which St. Paul has cautioned his disciples Timothy and Titus, as to warrant the supposition, that he foresaw the

[3] 1 Tim. vi. 20.

folly, and foretold the conduct of this learned ignorance of distant ages[4].

But what was more than all inauspicious to the study of theology and the pure interpretation of the word of God, these scholastic systems and disputations, from the prejudice of education and the prevalence of habit, inflamed by the heat of party zeal, by an insensible contagion warped the understanding of men of superior learning and sounder judgment. Hence, in their translations, interpretations, and commentaries of the Holy Bible, instead of representing the meaning of the original faithfully, critically, and candidly, they could scarce avoid giving it a colour of their own, to favour the sect or dogma to which they were inclined.

Thus the study of physics and divinity,

[4] Qua in re [litigiosa subtilitate], increpatio illa Paulina, non magis ad suam ætatem referri, quam ad sequentia tempora deduci, potest, neque Theologiam tantum, sed etiam omnes scientias respicere videtur. "Devita prophanas vocum novitates, et oppositiones falsi nominis scientiæ." His enim verbis, duo signa scientiæ suspectæ atque ementitæ proponit. Primum est, vocum novitas et insolentia; alterum rigor dogmatum, qui necessario oppositionem, et dein altercationes quæstionesque inducit, etc.—Bacon. De Augm. Scient. lib. i.

instead of being the just interpretation of nature and the Scriptures, which are the works of God, became the invention and support of systems, which were the fabrications of man. The honour of the philosopher and divine consisted, in a pertinacious and obstinate adherence, to the systems in which they had been bred, or in standing forward, with the pride and formality of a contentious logic, invincible champions in their defence; just as a mercenary soldier is bound to fight and to die under the banner to which he has once engaged.

From these causes, so inauspicious to the progress of good learning, neither of these studies made any material advance for many ages, till the sublime genius of Lord Bacon chalked out a new and different road, by the discovery of a sounder logic, for the study and interpretation of nature. He gave also such clear and collateral intimations, in regard to the study of the holy Scriptures, that a few philosophers and divines magnanimously embarked in the cause of truth. These, in despite of the statutable and formal disci-

pline, have gone hand in hand in emancipating reason from the bonds of artificial system, and upon experimental and scriptural grounds have been alike successful in the interpretation of the volumes of nature and of grace.

The success which originally crowned the labours of the philosopher in this new line of cultivation, gave encouragement to the divine to pursue a similar plan of study[5]. Some of the ablest divines of the church of England have employed their learning and labours, after this rational and scientific method, much to the honour of their profession, and to the great advancement of the first of sciences. What has been so ably and auspiciously begun in this theological reform, it is incumbent on their successors to pursue and finish. Avoiding the extremes of scepticism and superstition, of licentious speculation and blind credulity, it is full time to embrace and second this reform, in every part of our public discipline, by adopting the most judicious and proper means. It is time to turn

[5] See Introd. to book ix. of Warb. Div. Leg.

our backs with shame on the fabricated systems and absurd positions of artificial and hypothetical divines, who have usurped or infringed the prerogatives of scripture, and to explore the Bible itself, that pure and genuine treasury, that inexhaustible fund of sound theology. If systems be formed, let them be constructed only on a scriptural foundation. It is time, in short, to change, to shut up, or to pull down the schools, those monuments of the ignorance of past ages. It is time to abandon disputation and altercation, which at best are useless and unprofitable, and instead of contending about questions of science falsely so called, to go hand in hand in pursuit of the genuine prize; advancing with modesty, candour, and discretion; and following truth, not for the sake of triumph, but with an eye to charity. And under the direction of such a leader and logician, as our own country has produced, we need not despair of prosecuting our inquiries in the volume of nature, or in that of grace.—But let us not examine, with an eye too bold and daring, into the deeper mysteries of religion, that inner sanctuary, that holiest of holies,

wherein the Deity alone resides, and into which he has forbidden us to intrude.

Yet, whilst "the secret things belong to the Lord our God, the things, which are revealed, belong to us and to our children for ever[6]." "Let no one," says Bacon, "taking to himself the credit of a sobriety and moderation ill applied, think or maintain, that men can search too far in the book of God's word, or in that of his works, in theology or philosophy. But rather, let them excite themselves to the search, and boldly advance in the pursuit of an endless progress in either; only taking heed, lest they apply their knowledge to arrogance, not to charity; to ostentation, not to use[7]."

Thus the kingdoms of nature and grace are as two parallel lines following the same direction, but which can never be made to touch. These studies, by a general and close Analogy, reflect light upon each other, and are to be successfully cultivated in a similar way. But in their separate prosecution, that

[6] Deut. xxix. 29. [7] Bacon. De Augm. Scient. lib. i.

great maxim of all sound logic,—never to mix and confound them together,—should be most sacredly observed. The neglect of this maxim will be shown, in some future stage of these lectures, to be a fundamental cause of error[8]. And another admonition, with which that great reformer of learning concludes the above remark, is too important

[8] To this mixture of these different parts of learning, we may trace the origin of Hutchinsonianism, that strange infatuation, by which the judgment of a sect of very learned and worthy men, led away by whim and fancy and from want of proper strength and comprehension of mind, has been astonishingly betrayed; whom Warburton, in his rude style, denominated "a cabalistic crew, blind workers in dirt and darkness." Lord Bacon, who knew the proper nature and saw all the just dependencies and independencies of the different parts of learning, and what assistance they could mutually impart, has not only warned us against this mixture and confusion in general, but has stigmatized this particular evil, in the directest words—Alter excessus ejusmodi præsupponit in scripturis perfectionem, ut etiam omnis philosophia ex earum fontibus peti debeat, ac si philosophia alia quævis, res profana esset et ethnica. Hæc intemperies in schola Paracelsi præcipue, necnon apud alios invaluit. Initia autem ejus a rabbinis et cabalistis defluxerunt. Verum istiusmodi homines non id assequuntur quod volunt; neque enim honorem, ut putant, Scripturis deferunt; sed easdem potius deprimunt et polluunt.—Quemadmodum enim theologiam in philosophia quærere, perinde est, ac si vivos quæras inter mortuos: ita, e contra, philosophiam in theologia quærere, non aliud est, quam mortuos quærere inter vivos.—De Augm. Scient. lib. ix.

in the study of divinity, to be neglected—"Taking care again, not to mix and confound these distinct parts of learning, theology and philosophy[9]."

[9] Bacon. De Augm. Scient. lib. i.

The most beautiful and correct illustration of this admonition of Bacon is to be found in the "Analogy" of Bishop Butler, which cannot be too often, or too earnestly recommended to the theological student.

N. B. In the application of the inductive method to the study of revealed theology, we should be careful of adhering strictly to the rules and limitations which Bacon has himself laid down. It should consist in a diligent and comprehensive comparison of all its doctrines, so far as they can be brought to illustrate each other, ever remembering, that we can only know any thing of a divine revelation, so far as it is revealed, and so far as our limited faculties will permit us to interpret its discoveries.—Still, "the analogy of faith" will carry us a considerable way, and the unity of divine truth will greatly assist us. The complete systems, whether of nature or of grace, we can only "know in part"—but enough may be known to show the wisdom, the goodness, and the glory of their almighty Author.

That the inductive method is not strictly applicable to the peculiar principle of theologic truth, see page 20-28; and that it is, in some measure, superseded by the more extensive range of analogic reasoning, see page 9, 27, 33. But, under these modifications, the inductive *mind* may be safely recommended to the student of scientific theology; ever premising the preliminary monition of Luther,—"bene orâsse, est bene studuisse."—*Editor.*

darkened by the mist of that cumbrous logic, which obscures every thing which it surrounds. We need not therefore wonder, if their scriptural comments be of little use, in leading us to the genuine interpretation of the sacred code[1].

In addition to these general defects, commentators of later date became the bigots of religious persuasions, or the slaves of technical systems, which warped or obscured their partial judgment. The tyranny of the Romish hierarchy was, at any rate, to be maintained, all theological truth was to be made to bend to its worldly interests. To support these, the scholastic logic was found a most useful instrument. By a taint early contracted in a scholastic education, and confirmed by narrow habits of thinking and reasoning, each sect became the furious antagonist of another, whose main object was to confute their opponent's ingenious and partial interpretations and support its own. Interpretation

[1] On the strange interpretation of the Fathers, consult Daille, Barbeyrac, and Whitby; but to avoid an extreme, read Warburton's masterly preface to Julian, or Collinson's Bampton Lectures.—*Editor.*

thus assumed the character of disputation, and instead of critical explanations and luminous remarks, the sacred commentators are filled with private bickering and systematical altercation. Refinements on words and phrases, perverted by the subtlety of invention into every shape, occupied the rest of their bulky labours. Things the most obvious and direct they often wrest from their meaning, whilst those, which are involved in real difficulty, are left to remain undisturbed in their obscurity. "The Schoolmen," says a great author in the reign of Elizabeth, "spinne, into small threds and subtle distinctions, many times the plainesse and simplicitie of the Scriptures: their wits, being like strong water, which eateth through and dissolveth the purest gold.—For God knows, what a multitude of meanings the wit of man imagineth to himself in the Scriptures, which neither Moses, the prophets, or apostles, ever conceived[2]."

And thus, however much may have been written, much remains uninterpreted, and nei-

[2] Ralegh's History of the World, chap. ii. § 1.

ther from the number of the commentators, nor the bulk of their productions, can we infer, that the Scriptures are yet explained. In consequence of this partial, this frivolous, this contentious mode of interpretation, most of the huge folios, with which the presses of Europe have groaned for ages, are replete with unmeaning jargon, interspersed with unedifying disputations, and abounding with uninteresting remarks.

That, out of the vast heap of annotations of matter and mixture of every kind, raked together by the dull industry of the older and later commentators, some things valuable should not be found, would be a paradox unprecedented in the course of human events. Few men there are in any profession or sphere of life, who say much upon topics which they profess to understand, without saying some things well. There are some lights, which shine from the surrounding heaps of darkness and confusion, like diamonds out of the immense rubbish of the mine, worthy of preservation for the elucidation of this mysterious book. The interpreters of future ages are indebted to the

indefatigable industry of a collector[3], whose laborious "Synopsis" has brought together every thing worth preserving; by which he has saved the trouble of diving into a vast and tumultuous sea, wherein the few pearls to be found would scarcely reward our labour and research.

With these scanty advantages, derived from the voluminous lucubrations of former times, a ray of brighter hope has dawned upon the Bible in these later ages, from the more rational and philosophical method of study, and that candid and liberal inquiry, which do honour to the present scientific and enlightening era. It is now, that men of diverse educations, countries, and persuasions in religion, eminent for learning and of indefatigable industry, abandoning the contentions, and despising the bigotry of former ages, unite as Christians, in one great and common cause. Instead of labouring to confound and perplex, they are anxious to aid and assist each other; whilst, to the credit of learning and themselves, they go hand in hand, in the same

[3] Poole.

honourable walk, with Truth for their guide, and Charity for their companion.

Impressed with an awful sense of the authority of the sacred volume, and of the importance of its immortal argument, the honest interpreter will shake off the bias of prejudices however inveterate, of opinions however sanctioned, and of passions however constitutional, and thus bring to the work, the atmosphere of a pure and impartial mind. Instead of wasting his labour upon a number of minute and less significant particulars, or of refining away plain and obvious sense, by the subtleties of a narrow and corrosive intellect; it will be his first object to institute a theological inquiry into the general design and purport of the written Word; and, from principles and instructions, fully contained and fairly understood, to illustrate the true nature and genius of the religious dispensation, in all its parts. He will mark the difference between the first and second covenants, that of works and of grace, and observe the connexion which subsists between them. He will trace the temporary economy of the

Old Testament, and weigh the nature and import of the partial covenant with the Jews, observing with astonishment, how it was made introductory "of better things to come." He will then follow it through the law and the prophets, in its marvellous evolutions, till he beholds this vast and preparatory machine of Providence, crowned and completed in the eternal Gospel. The New Testament, the last and noblest part of the religious dispensation, he will afterwards study, in the sacred pages of that Gospel, with redoubled attention; contemplating, with purest love and profoundest admiration, the divine foundation on which it is built, the supernatural means by which it was executed, and the immortal end which it has in view.

On this general foundation, all the subordinate labours of the sacred interpreter should be formed, as the design which they are destined to illustrate and display. Great and awfully sublime is the task of the theologist in this most important department of his profession—a task, to the adequate performance of which, many are the acqui-

sitions, qualifications, and accomplishments indispensably requisite, and various and extensive the studies to be pursued[4].

I. *The learned Languages.*

The languages in which the books of Holy Scripture were originally written, and into which they were early translated, constitute the first object of the interpreter's study and attention, as being the proximate matter of all theologic truth. The book which records the testimony of God, is only to be accurately and scientifically understood, in its original and primitive form.

Nor are these languages to be studied in a careless and superficial way. They should be pursued radically and grammatically through their inflections and variations, their dependencies and connexions, their dialects and changes. To a competent knowledge of the grammar and vocabulary of each, the student should call in the assistance of the best

[4] See Shuckford and Prideaux; also Daubeny's Discourses on the Connexion of the Old and New Testament; Stillingfleet's Origines Sacræ, above all, Butler's Analogy.—*Editor.*

lexicons, commentaries, and concordances. These will enable him to understand their peculiar genius and structure, their anomalies and analogies, their relations and differences from each other[5].

The primitive languages of the Old Testament are too little known, and cannot be too accurately and minutely studied by the theological student. Deeply convinced of the vast importance of this ancient oriental learning to the better knowledge and illustration of the Scriptures, learned men of different universities in Europe have applied themselves with great assiduity to their grammatical and critical investigation. Since this part of theological literature has been so zealously undertaken and so ably conducted, we may congratulate ourselves upon the extensive and accurate collations of the sacred writings, and hope to receive an improved and uniform translation of the whole, the fruit of their joint and honourable labours. We would admonish them to guard, with

[5] See Bishop Marsh's Lectures, parts 1, 2.

especial care, against the corruptions, frauds, and impostures, which have been practised by the Jewish Talmudists upon the Hebrew text, and to use the LXX version, as the polar star to guide them to the truth.

The genius of the Greek tongue, in which the New Testament was written (in which, we have a very ancient and invaluable translation of the Old, which for some ages before St. Jerome, was thought by the learned, to have been aided in its formation by more than human skill, and which was certainly sanctioned by Christ and his apostles[6], by their numerous quotations), "is universal and transcendent, and, from its propriety and universality, made for all which is great and beautiful in every subject, and under every form of writing[7]." Nor can it ex-

[6] Some years since, the editor had occasion to institute an exact inquiry into the quotations of the Old, in the New Testament, and he ascertained the number to be as follows: There are, in the whole, two hundred and forty-five quotations; of which, one hundred and ninety-three are taken literally from the LXX; thirty-one agree with the Hebrew, and the rest vary, more or less, from both.

[7] Harris's Hermes, p. 423.

cite surprise, that the Holy Ghost should employ the most perfect language which ever existed, to become the general vehicle, to convey and disseminate the treasures, both of the Old and New Testaments, and to remain the standing monument of religious truth, through all future ages. The Greek tongue is, therefore, of far more importance to theology than all other languages. It is capable of a more precise and adequate expression, of being more distinctly and accurately understood; and, what is more than all, it is universally applied, that is, by taking the Septuagint as a part of the sacred code, whose words and phrases are uniformly adopted in the New Testament, and whose authority is sanctioned by that application. The Greek tongue is thus co-extensive with the whole of sacred writ; so that by mutual reflection, one part may receive and communicate light to another, which is the true key of all scriptural interpretation[8].

[8] On the peculiar style of the New Testament, in its connexion with the Old, the work of Bishop Jebb should be carefully studied, as an admirable continuation of Bishop Lowth's Lectures.—*Editor.*

The Latin tongue was spoken by a people who, though not so eminent in arts and elegance as their eastern neighbours, were more renowned for arms, by which they extended the Roman empire over all the civilized parts of Europe, Africa and Asia. And thus the language of the Greeks, and the sword of the Romans, became the especial instruments in the hand of Providence, for disseminating the Holy Scriptures throughout the world. Their dominions, lying between the scene of scripture history and all the western provinces and islands, their language though less copious, and in every respect much inferior to the other, became the vehicle, by which, the books of Holy Scripture and the works of the Greek fathers were safely conveyed to us. In this tongue, we have the old Latin version, called the Vulgate or Italic[9], whose antiquity and authority are superior to many of the Greek manuscripts, with a long list of the Latin fathers; whilst the

[9] See Simon's Hist. Critic. des Vers. du Nov. Test. in Martianay Prolegom.

numberless commentaries, translations, and dissertations, which have been written in different ages in Latin, are of the greatest importance to theology. Nor is it the least praise of this language, that it has become the channel, by which, we usually arrive at our knowledge of the Greek[10].

II. *The Styles of Scripture.*

From the languages, the interpreter of holy writ will bend his attention, to the styles of Scripture, which will open a field of curious and important disquisition.

When he has analyzed the nature and studied the philosophy of language, he will not require to be informed, that man is distinguished by speech above all terrestrial beings. This prerogative of man, which the Almighty hath employed in the revelation of his will, takes its origin from the impressions, which sensible and material objects make, through their respective organs upon the

[10] See Bishop Marsh's Lectures, part 1.

mind, expressed in words or vocal signs, their arbitrary but instituted representatives. He will also know, it is by transferring these words or instituted signs, thus taken from sensible and material objects, to the thoughts and ideas of the mind, which are inapprehensible by the senses, from a similitude, real or metaphorical, between them, that language is extended to the expression of mental and abstract subjects of every kind. Such is the nature and origin of all human languages, philosophically considered; which are nothing more, than the indirect representatives of the things which they express. He will accordingly observe, that figurative modes of speaking abound in all languages; though, by habit, they often become unperceived in their use.

The similitude, which forms the medium of this extension to mental and abstracted subjects, is of two distinct and different kinds. Sometimes it is real and permanent. In this case, the transfer of the words, from their primitive and material, to their secondary meaning, is called *analogy*. But this similitude is often apparent only, and fluctuating, in which case, the transfer is called a

metaphor. When the similitude is real and permanent, the analogical term, by which it is expressed, becomes the true representative of the thought, because it distributes the features of the resemblance between the things compared. It forms the indirect, but the faithful medium, by which truth is communicated[11]. But, when the similitude is only apparent or imaginary, the metaphorical word, or figurative expression, is not the true representative of the thought, or necessary vehicle of information. It is of a more arbitrary, fictitious, and poetical nature, employed, not properly to convey, but to explain, to illustrate, to heighten, to adorn, and occasionally to conceal the truth. Analogy is, therefore, the instrument of the understanding, metaphor the instrument of the imagination; the one, is expressive of the practic and theoretic; the other, of the poetic mind.

However simple it may appear, this distinction of language in general, as transferred from material impressions to mental operations, forms the two general styles of Holy Scripture. It is, therefore, a distinction of the

[11] See vol. i. chap. iv. sect. 3.

highest importance in the study of theology. Analogy implies a real and existing correspondence, arising from the nature of the subjects themselves; whereas figure or metaphor is an imaginary resemblance, arising merely from their surface and semblance.

If men are under the necessity of using these indirect and figurative modes of speech, to adapt human language to the mental abstraction and sublimity of their thoughts, insomuch that the frequency of the habit renders them insensible of the act; when God, that most pure and exalted mind, totally abstracted from matter and removed from sense, communicates himself and his immortal truths to men, whose words and ideas are replete with sensible and material images; we must see the far greater necessity of his language, being still more replete with analogical and figurative expression, however he may accommodate himself to their thoughts, their words, or ways.

1. *The Analogical Style.*

Analogy is the instrument of the understanding, and forms the species of logic,

which is peculiarly appropriate to subjects of theology, in every stage of that sublime and comprehensive study. It is the natural vehicle, by which, the divine truths of religion are conveyed to the view and apprehension of the human intellect, and find a place in the human heart[12].

In this dark and sublunary state, wedded to sense, immured in body, involved in matter, men possess no faculties of body or soul, by which, they can form any immediate conception of beings perfectly immaterial, and more especially of God, that most pure and immaterial Spirit. Between the visible and invisible worlds, an impassable gulf is fixed, an impenetrable chasm, through which, not one single ray of celestial light can directly dart. All our information of things which are divine, must, therefore, be conveyed through an indirect channel: and, as we have seen human language capable of being transferred, by this analogy, from

[12] Consult Bishop Browne's Divine Analogy; also his Procedure and Limits of the Human Understanding. These are both valuable, and too little known by our modern theologians.—*Editor.*

material impressions to mental phenomena, and of communicating the latter with certainty and precision; so, by a similar, but far higher transfer from things human, material, or mental, to those which are divine, it is converted into an indirect, but faithful instrument of this celestial communication. Through the agency of this necessary instrument, we are alone rendered capable of receiving the mysteries of religion; which, in condescension to the apprehension and capacity of man, the Deity hath graciously and abundantly employed[13].

Though analogy often affords strong presumptive evidence, it cannot in theology amount to certainty, till it receives scriptural

[13] Vates sacri, naturam divinam, sub humanis imaginibus adumbrant, eo quod illud necessario postulet humanæ mentis imbecillitas; eoque modo, ut quæ a rebus humanis ad Deum transferuntur, nunquam proprie accipi possint. Semper remittitur intellectus ab umbra ad veritatem, neque in nuda hæret imagine, sed protinus quærit et investigat id, quod in divina natura ei imagini est analogum; grandius quiddam et excelsius, quam quod possit plane concipere et apprehendere, sed quod animum, metu quodam et admiratione, percellit.—Ea enim est mentis nostræ ignorantia et cæcitas in divinæ naturæ contemplatione, ut ejus notionem simplicem et puram, nullo modo, possimus attingere.—Lowth. Præl. De S. P. Heb. xvi.

authority; but, as the proof of every divine doctrine must depend on the Scriptures, the analogies which they sanction become argumentative, and may be pleaded, in defence of the truth, which they illustrate, as resulting from a similar relation. When the same relation subsists between two heavenly, as between two earthly things; then, on account of this analogy, the word, which expresses the one relation may be transferred to the other. It is thus, that the figures of things below become representatives of the "patterns of things in the heavens[14]." It is thus, that the deep things of God become capable of being imparted to our finite understandings.

This divine analogy, so indispensable to divine revelation, is, like the human, founded on similitude; consisting, in a permanent resemblance and correspondent reality, between the terrestrial things, or those ideas, which are the direct objects of human intellect, and those celestial truths, of which we can have no direct conception. It is expressed, by transferring the words and ideas,

[14] See Heb. ix. 23, 24.

which stand for the terrestrial things, to the celestial truths; which words are to be understood in their plain and obvious, not figurative sense. So that the comparison is founded on something real, as well as similar; from which real and immanent similarity, as a principle, reason deduces a just and true correspondence[15].

By means of this correspondence, which forms the analogical style of Scripture, the eternal relations of the glorious Godhead are truly and faithfully conveyed to us; the relations of Father, Son, and Holy Spirit, with their office and operations, as Creator, Redeemer, Mediator, and Sanctifier. All the mysteries of our religion are, through this analogical medium, revealed to us, so far as the revealer has thought necessary, by their correspondent names and terms. They are described as a price, ransom, redemption, atonement; we are saved, purchased, and redeemed—we are "the children of God," and "the joint heirs with Christ," and thus all our human relations are brought to bear on this divine analogy.

[15] See vol. i. p. 52—56.

Let us illustrate this reasoning, by one example. Christ is represented in Scripture, as an advocate and intercessor, in the strict and proper language of analogy. Whatever is proper to an advocate, pleading before a human judge, that Christ transacts before the throne of God, for us; and what an intercessor would effect between man and man, that Christ performs between God and man. As our advocate, he pleads; as our intercessor, he reconciles man to God.

This language of analogy, thus real and permanent in its use, which forms the continuous style of Holy Scripture, however indirect, is clearly to be understood. When God is termed the Father, in respect of Christ the Son; what a father is to a son here, according to the law of nature, that God is to Christ, by a supernatural generation. The word mediator, in its familiar use with men, imports a person, who, by interposing his friendly offices, reconciles those who were at variance. It is substituted, by analogy, to represent Christ as interposing, in a similar way, between God and man. And though the manner of his supernatural generation, and also of his

mediatorial interposition be inconceivable by us, and perhaps ineffable; yet the word *Son*, fully and clearly informs us of his relation to the Father; whilst that of *Mediator*, as clearly and certainly expresses this consolatory truth —that, as one man reconciles two enemies, so men are reconciled to God the Father, by the inestimable mediation of the Son.—This is a true and real analogical statement. But when Christ is called "the head of the church," or we are called "the members of his mystical body;" though the relation be very illustrative of the connexion which subsists between the head and members of our human bodies, the expression is metaphorical, rather than analogic. It is founded only on ideal resemblance, and not on any actual identity or sameness of relations. It is a scriptural illustration, but not a scriptural analogy.

Instead of giving men new and spiritual ideas of heavenly things, different to those they have by nature, or instead of using a spiritual language, or mode of communication, adapted directly to express such heavenly realities (which would be to change their na-

ture at once, and to treat them as different beings, contrary to the divine intention); this analogy takes men as they are, by only transferring their words and ideas, from earthly, to heavenly subjects. By this divine and adorable arrangement, "the invisible things of God," in the emphatic language of St. Paul, "are clearly seen, being understood by the things which are made[16]."

In human analogies, by understanding both sides of the comparison, which are equally the objects of our senses or reflection, we can judge of the exact degree and proportion of the similitude. But, in this divine analogy, as we understand only one, that is, the earthly side, we cannot judge of the exact similitude. Yet have we an equivalent, more than sufficient to compensate this defect, in the veracity of Him, whose goodness hath vouchsafed us this supernatural communication, and whose wisdom hath judged it to be sufficient. On this faith we depend, that the resemblance is certain, incapable of deceiving, though incom-

[16] Rom. i. 20.

prehensible in its nature. The same benign and gracious Being, who hath furnished us with senses, by which we are not deceived, hath given us this diviner mode of instruction. Since it is as necessary, and even more important than the evidence of our senses, its truth is as certain, as if we understood both sides of the similitude, or as if he had given us direct and adequate ideas of his celestial truths, by a mode of communication directly adapted to them. It presents us with clear and lively representations, and we instantly infer their correspondent realities; relying as we may upon his truth and wisdom, and thus forming them into the foundation of our present faith and future hope.

Compared with that more direct and personal intuition of the Godhead, which we may be admitted to enjoy, in that future and more perfect stage of our existence,—"when this mortal shall put on immortality,"—this analogic view of things may pass, as St. Paul expresses it, through the medium of a glass darkly and enigmatically. But, though we behold nothing, in a glass, of the real substance of a man, we have an exact view

of his image, which implies the existence of a correspondent body—and thus, in this analogic mirror of divine truth, we may sufficiently behold "the fair image of the Lord," and those stupendous realities of the invisible world, with which we are concerned; without having "the great mystery of godliness" unveiled, till we are changed and prepared for its enjoyment[17].

By this method of divine revelation, so necessary, so real, clear, and certain, the Almighty bowed the heavens and came down in wonderful condescension, to the blindness and imperfection of human reason; speaking to us of himself, in our own ideas and words, with the utmost familiarity, "as a man speaketh with his friend[18]." He has thus enabled us to think and to speak of him, as far as we are concerned, with all reverence and adoration; yet with similar ease and certainty, as we speak of each other. "In the explication of his mysteries," says our great philosopher, "God

[17] See Felton's Vindication of the Christian Faith, p. 201. —*Editor.*

[18] Exodus, xxxiii. 11.

vouchsafeth to descend to the weakness of our capacity, so expressing and unfolding them to us, as they may be best comprehended by us, inoculating, as it were, his revelations upon the conceptions and notions of our reason; and so applying his inspirations to open our understanding, as the figure of a key is fitted to the wards of a lock. We ought not, however, on this account, to be wanting to ourselves; for, seeing God makes use of the faculty and functions of reason in his divine illuminations, we ought every way to improve the same, in order that we may be more capable to receive and entertain such holy mysteries[19]."

The interpreter of the Bible will pay particular attention to the analogic style, viewing it as the wonderful arrangement, to which we owe that enlargement and extension of the human mind, without which, the stupendous truths of revelation would for ever remain at a distance from our utmost apprehension, and as inconceivable by us, as if they had no existence; and without which,

[19] Bacon. De Augm. Scient. lib. ix. cap. 1.

the Deity himself would be very erroneously and obscurely known. He will acknowledge its just interpretation to be of the last importance, in forming a right conception of the Christian mysteries, or in preventing their misconception. He will allow its importance, in prescribing just limits to the human understanding and for determining the proper office of reason, in the interpretation of the Holy Scriptures. He will look up, with devout admiration, to that divine method of communication, by which the Almighty hath bowed his divinity to the earth, to raise the human mind to heaven. He has thus introduced us to an acquaintance with those objects, of which we are incapable of an immediate apprehension, till this earthly tabernacle being dissolved, we shall be admitted, "behind the veil," to "behold them face to face." When that great change, which we are led by this analogical intercourse to expect, shall arrive, we shall be advanced to higher capacities of knowledge and enjoyment, to the more immediate vision and fruition of the Deity. Yet even in our nearest approaches, we shall remain for ever unequal to the

immeasurable power and wisdom of the glory of God[21]. "And we all, with open

[21] See Lord Bacon's Confession of Faith.

"Even the highest order of angels, cherubim or seraphim, must probably have a method of forming conceptions of God and his perfections, which do not come up to direct and immediate perception, such as they have of one another and of all heavenly objects, and such as we now have of things human and material. Their manner of conceiving the divine perfections, and of communing about them with one another, may be probably through the lively transcript of them in their own nature, from their great archetype and creator. Thus they think and discourse about them, with one another, if I may so speak, as we do; but, from those inconceivably more elevated and exact representations, which they find in themselves. This is but a kind of analogy; though such, as hath a much nearer foundation or proportion of similitude, than ours. And though it is a strain of divine knowledge in them, vastly transcending the farthest reach of all our capacities, and may for ever successively receive a gradual increase and improvement; yet probably it will never come up to a direct and immediate intuition of the divine nature, as it is in itself."—Bp. Browne's Div. Analogy, p. 40.*

St. Paul says (2 Cor. xii. 4), that when he was "caught up into paradise, he heard unspeakable words, which it is not possible for a man to utter." And if they were uttered as spoken in heaven, it would be impossible for men to understand them: for, if those were words which could express the nature of God properly and directly, or as he is understood by the angels in heaven, they would be unintel-

* The whole doctrine of analogy, as stated by Dr. Tatham, is taken from the Divine Analogy of Bishop Browne, whose language, as well as thoughts, form the staple of this entire section.—*Editor.*

face, beholding, as in a glass, the glory of the Lord, shall be changed into the same image, from glory to glory, by the Spirit of the Lord[22]."

2. *The Parabolical Style.*

Metaphor is the instrument of the imagination, that inventive faculty, to which we have assigned the province of poetry[23].

In the analysis of the poetic art, the species of which words are the materials, though less exact and perfect in its imitations, than the rest, was found to exceed them greatly in extent and operation[24]. But, however effective and superior poetical expressions may be, as all language is incapable of imitation which is direct and immediate[25], the similitude which they depict, and in which

ligible to us, unless our present nature was changed; because we have not faculties adapted to them. To a man born blind the word "seeing" is, we know, totally unintelligible, and no human art can make him understand it. In like manner, this heavenly language would be as unintelligible to us, as the word "seeing" is to him.—See Bishop Browne's Analogy, p. 32.

[22] 2 Cor. iii. 18.
[23] See vol. i. p. 273.
[24] See vol. i. p. 285.
[25] See vol. i. p. 292.

consists their poetic beauty, is, in every view, very different from that, which is analogical, and is applicable to a very different purpose. This metaphorical similitude, as we have observed, does not arise from the inherent properties of the subject, by which the words are taken, and transferred to others; but from the imagination only of him, who takes and transfers them. It is, therefore, only the fictitious resemblance and arbitrary invention of the poet, for the creation of imaginative *effect*.

From the variety of these effects, (which are the ends of poetry,) it is divided into four general kinds, according to the different modes employed—descriptive, narrative, dramatical, and parabolical. Of these, the last, though the least direct and close in its imitations, has been pre-eminently distinguished, as more particularly consecrated to the service of religion. "Parabolical poetry," according to an observation of Lord Bacon, "excels among the rest, and appears to be peculiarly sacred and venerable; since religion herself makes use of its

assistance, by which, she maintains an intercourse between divine and human things[27]."

As words were originally employed, like vocal symbols, to convey a meaning, in the immediate act of speaking; so, to convey speech to a distance, or record it, pictures were employed in the act of writing. Again, as words, to convey mental operations and abstract ideas, were converted into metaphors; these figures, for correspondent purposes, were gradually converted into visible symbols, or standing signs, expressive of mental emotions or poetical ideas. This was accomplished, first, by marking down their natural shape, as the figure of a horn, for strength; and then, by using the word answering to the symbol, whether in speaking or writing, to stand for the general idea. Thus, by the addition of symbolical, to metaphorical expressions in all their variety, figurative language was increased to a vast

[27] De Augm. Scient. lib. ii. cap. 13.

extent[28]. Such is the origin and nature of the parabolic style, which, by the various inventions of the imagination, in tracing poetical similitudes of different kinds, and applying them to different purposes, was diversified and extended into all the forms of parable, allusion, allegory, comparison or similitude, apologue, imagery, symbol, personification, and representative action[29].

This style, which originated in necessity, was gradually converted to use and ornament. Under its dark and enigmatical veil, the knowledge of the earliest ages was propagated, or its wisdom concealed. The priest inculcated his doctrines, through the medium

[28] De genere figurato jam dicturus, video mihi pœne infinitam rerum materiam, et immensum quendam campum patere.—Lowth. Heb. Præl. v.

[29] Per dictionem figuratam, eam intelligo, qua, una pluresque voces vel imagines, in aliarum locum, transferuntur, aut etiam aliis illustrandis inserviunt, ex aliqua, quam cum iis habent, similitudine. Ea similitudo, si innuitur tantum, fit metaphora; si oratione continuata, dicitur allegoria: si aperte exprimitur, collatis inter se utrisque imaginibus, fit comparatio: fundatur etiam in ejusmodi similitudine prosopopœia, cum, vel rebus fictis aut sensu carentibus, datur actus et persona—vel cum veræ personæ probabilis oratio tribuitur.—Lowth. Heb. Præl. v. See also Bishop Marsh's 16th, 17th, and 18th Lectures.

of mysterious rites; under the cover of allegory, the philosopher disclosed his science; the legistator and the moralist conveyed their instructions, by proverbs and parables; and, by a well-invented and consistent fiction, in which, every species of poetical expression and imagery was interwoven, the poet delighted and improved mankind.

Agreeably to this method of instruction, which prevailed amongst the eastern nations in ancient times, the dispensation of religion was conducted. Various is the texture and composition of the poetic or parabolic style, employed by the sacred writers in almost every part of the Holy Scriptures, (excepting that which is historical,) to answer the various ends of the Inspirer. These ends may be divided into two general kinds; the one, common to them with all other poets, to illustrate, adorn, and exalt the subject[30]. The other, proper and peculiar to themselves, to couch and conceal their

[30] Etenim dictionis figuratæ,—id consilium est, ea vis, ut imaginibus aliunde translatis, res vel evidentius ac clarius, vel grandis etiam atque elatius exprimantur.—Lowth. Heb. Præl. v.

meaning, in a way, at once singular and essential to the religious dispensation, of which it was the instrument. These different purposes are frequently mixed and involved in the same scriptural passage or expression. They should, however, be distinguished as far as possible, by all critics and interpreters of holy writ, and should be held by the latter in constant and awful recollection.

We possess an excellent critique on the Sacred Poetry of the Hebrews, from the pen of a late learned and ingenious prelate, which was delivered in lectures, from a professorial chair in this university. The work is bold and magnanimous in its design, tempered with that circumspect caution, suggested by a subject so awful and sublime. In the execution, it is difficult to determine, whether the refinement of critical judgment, or the elegance of classical language chiefly predominates. It was not the object of the polished author of this admirable performance, to establish the principles of scriptural interpretation, for the use of the theologist; but to recommend the beautiful poems of the Hebrews, to the poetical taste and classical

genius of his academical auditors, and thus to invite them to the study of the Holy Scriptures[31]. Whilst we see, therefore, the first of the above-mentioned ends of the poetic style, displayed in this celebrated work, with all the acumen of criticism and minuteness of discrimination; we find the second, which is the more peculiar and important, almost entirely overlooked. In consequence of this inattention to the appropriate end of scripture style, we have to lament, that, with the purest and most liberal intention, this learned author has inadvertently seduced himself and others into a style of criticism, injurious to the right interpretation of the Holy Scriptures. By this method of criticism, the sacred volume has been brought in all respects too much on a level with human compositions, whilst its structure, as well as meaning, are too much judged of and decided by a classical standard.

In this opinion, I think, we are supported

[31] Ut meminerim me, non theologiæ studiosis divinæ veritatis oracula exponere, sed juventuti in politiori doctrina et literarum elegantiis exercitatæ commendare lectissima poemata.—Præl. ii.

both by the general design and execution of this celebrated work.

It is distributed into three parts.—The first treats of the metre of the Hebrew poetry; and to the remark which, whether true and just or not, is at least ingenious and plausible,—that some kind of metre is essential to poetry,—I have only to rejoin, that, by bringing to the poetry of the Hebrews, the notions of metre from the Grecian, Roman, and other poetry of more modern date, which may uniformly be in measured verse, he too hastily inferred, that the poetry and the metre of the ancient Scriptures were co-extensive with his own vague conception of metre. By this decision, he excludes all those parts, which are not thus metrical, from the poetic province; abridging thereby the privileges and extent of the parabolical, which is, also, the prophetic style[32]. In consequence of this confined conception of the Hebrew poetry, he excludes the whole book of Daniel, from being poetical and parabolical, and consequently, from being pro-

[32] See his preliminary dissertation to Isaiah.

phetical. Without its appropriate poetical vehicle, prophecy cannot exist.

The second part is on the style of the Hebrew poetry, in which, after a dissertation on what is called the sententious, he proceeds to the figurative, which peculiarly constitutes the parabolical style. He gives a formal specification of the different ends it has in view,—to explain and illustrate, to aggrandize or exalt the subject. But it is remarkable, that he has altogether omitted the peculiar and appropriate end of the figurative style, to *conceal* the meaning[33]. In this part, he has given a display of the figures of rhetorical diction—of the metaphor, in all its variety of poetic imagery, of the allegory and parable. In the eleventh lecture, he treats of the mystic allegory, with great ability; in which, he certainly adverts briefly to the second, or specific, end of the parabolical style, as adapted to the object of prophetic concealment. But this notice is merely partial and incidental, and confined to one

[33] See Præl. v.

single figure. He then proceeds to the different kinds of comparison, prosopopœia, or personification, and employs four lectures on sublimity of diction, in raising the conceptions and affections.

In the third part, he gives a minute and critical analysis of the various species of Hebrew or prophetic poetry, as it assimilates and accords with the various kinds of classical composition; the elegy, the ode, the hymn, the didactic, and dramatic poem; excluding, from the poetical calendar, the entire books of Daniel and Jonah[34].

The whole of this celebrated performance is therefore a critique of sacred poetry, by the standard of profane. It is to judge of divine, by human compositions. And this work is entitled to the praise, which has been bestowed on it, so far as this kind of criticism may be fairly and justly employed upon a book of most solemn and superior import; which is professedly concealed in its expressions and mysterious in many parts; with the view of displaying those poetical ends, which

[34] Præl. xx.

it may possess, in common with other poetical fictions.—But is this all? Had the Author of inspiration no other end in view, when he dictated the prophecies? And if there be another and higher end, where can we draw the line between them?—It deserves to be well and maturely weighed, how far the sacred critic may venture in displaying these classical ends, or in judging of the poetical means employed, without intruding on the rights, and infringing the privileges, of that higher end, which is properly divine, and peculiarly adapted to the purpose of Holy Scripture. The pious and ingenious author of the Prelections seems, indeed, to be occasionally arrested, in the midst of his critical career, by this awful reflection; as if he were sensible, that he might be sometimes treading, with a profane step, upon holy ground.

Without paying sufficient attention, as a divine, to that vast system of prophecy interwoven, by means of the parabolic style, in all its variety and extent, through the whole of the Hebrew Scriptures, he has indulged the critic with great freedom, and indeed with much ability: and it need not offend his

numerous admirers (of whom, I profess myself to be one), if I say, that this celebrated work betrays more of the classic, than the divine. After the example of Longinus, and with the acumen of Aristotle, it was his object to display the various and distinctive characters of the sacred poets, in the sententious, the figurative, and the sublime; to illustrate their specific qualities, and to trace the peculiar effects, which they are calculated to produce on the imagination and affections. With such intention, the Professor of poetry selected a field of criticism for the theme of his lectures, as fruitful as it was novel; in which his classical genius has expatiated with equal taste and judgment. But he has overlooked the main end and object, which the Inspirer of this poetry had principally in view, and which should place a restraint on our judgment, in deciding upon the former. He has also confined the parabolical style, within limits which are hypothetical, and far too contracted; for, independently of the metre and other accidental modifications, all scripture language which is indirect, whether couched in parables, visions,

dreams, or representative actions, is parabolic, and capable of concealing a prophetic import. He acknowledges the intimate connexion between prophecy and poetry in the Hebrew Scriptures, and considers them, as the joint dictate of the Holy Spirit[35]. Yet it is difficult to conjecture, why he has dwelt so partially and incidentally on this prophetic end of poetry, but on the supposition, that by allowing its full weight in the writings of inspiration, he would have blunted the edge of that inventive conjecture and critical refinement, in which his genius so much delighted, and in which he has so liberally indulged.

Considering the Holy Scriptures as different from all other books, in their origin, intention, and execution, the theological student should check the career of this classical and sentimental criticism, however elegant

[35] Ex quibus omnibus satis liquet, veterum Hebræorum sententia, cum poetica, prophetiam arcta quadam societate et cognatione conjunctam fuisse. Utriusque facultatis idem erat nomen; eadem quippe origo, idem auctor, Spiritus Sanctus, &c.—Præl. xviii.

and ingenious, to concentrate his chief attention on the mysterious and appropriate end of the parabolic style. He should awfully bear in mind, that a vast and various chain of prophecy was employed by the omniscient Dictator of religion, as its concomitant and standing evidence. For the conveyance of this evidence from age to age, to the most distant periods of futurity, he should observe the amazing texture of the most profound concealment, interwoven in every part of the religious dispensation, from its earliest annunciation down to its final close, when the Spirit of Prophecy withdrew his special communications. This texture he will discover to be wrought together, with the most exquisite and consummate art, calculated to fulfil the secret, but important end of the Inspirer. He will observe, that the poetic or parabolic diction, in its full latitude and extent, was the divine instrument, under which, the Holy Spirit concealed his prophetic designs. Without losing its beautiful and sublime effect on his fancy and affections, he will perceive, that this was the main, and indeed the only adequate purpose; and hence,

is so much more abundantly employed in the Holy Scriptures, than in any other book. He will think, that fanciful and sentimental criticism, even were it employed with the utmost safety, and without the least presumption, is a very trifling and inferior office, when contrasted with that of the sacred interpreter, engaged in a serious investigation of the curious structure of this style, which, however varied, is uniform and consistent, comparing one part with another, in order to develop the secret intention of the Spirit of Prophecy, as it comes to be evolved in the prophetical event[36].

He will acknowledge two different causes of this parabolical concealment, the one special, the other general. The prophecies of the Old Testament were delivered, under a temporary and inferior dispensation, preparatory to the establishment of that which was to be perpetual and perfect. They were, therefore, eclipsed and shadowed, that the temporary economy might not be degraded in the minds of those, who were to live and

[36] See Bishop Marsh's 19th to 22nd Lectures.

to serve God under it, by holding up a view too conspicuous, of the brighter glory which was to follow. "The ministration which was made glorious, had no glory in this respect; by reason of that glory which excelleth[37]." For the express purpose of hiding from their view the abolition of the law, and of preventing them from being lost to its observance, in the too earnest anticipation of the gospel, "Moses put a veil over his face, that they could not steadfastly look to the end of that, which was to be abolished[38]." And, to this special cause of concealment, he may add another, which is more general and permanent. The completion of prophecy, being left to the instrumentality of free agents, if the predictions were not thus concealed, such a restraint would be placed on the human will in their fulfilment, as to destroy the nature of man; or human obstinacy might be tempted to counteract the intent of Providence, and thereby to destroy the purpose of God. But, under the cover of this parabolical veil, the free agency

[37] 2 Cor. iii. 10. [38] 2 Cor. iii. 13.

of man is made compatible with prophecy, whilst the Almighty is converting the actions, the errors, and the vices of men, into the secret instruments of his design. On that greatest of prophetic events, the crucifixion of his Son, the ancient prophets are so full and clear, that it is difficult to conceive, how the persons, by whom it was executed, could be ignorant of what they did. Yet, that they were ignorant, we know from his own authority—"Father, forgive them; they know nor what they do[39]:" and St. Peter told them afterward, "That through ignorance ye did it, as did also your rulers; but the things which God had before shewed, by the mouth of his prophets,—that Christ should suffer,—he hath so fulfilled[40]."

The same parabolical diction was subsequently employed by Christ and his apostles, in their prophetic character, as teachers sent from God, for the purpose of shading under its veil the mystical doctrines, exalted pre-

[39] Luke, xxiii. 34.

[40] Acts, iii. 17, 18. See Bishop Hurd's Introduction to the Prophecies; Bishop Sherlock's Discourses on the Use and Intent of Prophecy; and Davison on Prophecy.

cepts, and prophetical anticipations of the New dispensation.

The parabolical style of Holy Scripture, in the different forms which it assumes, is that important and extensive theme, which solicits the express study of the theologist, and which, independently of the important end of his profession, promises to reward his labour, by gratifying a sublime and laudable research. In every stage of the investigation, he will be filled with solemn admiration, whilst he traces the consummate art, and contemplates the marvellous address of the Inspirer, in concealing the prophetic meaning, under such general descriptions, different senses, symbols, allegories, images, representations, dreams, and visions, as were mysterious in the highest degree, till the anticipated event arrived; yet plain and obvious, when that event took place.

Poetry from its nature consists of general ideas[41]. By the use of these abstractions, prophetical enunciations exhibit only the outlines of things, as of pictures which are sketched; yet with such an exquisite pencil, that no

[41] See vol. i. p. 283.

facts, but the events themselves, are able to fill up and to adjust the particular features, or to give a finish and perfection to the celestial portrait. The general outline is indeed clearly and distinctly marked by the prophet; but, to give it all its personal and distinctive traits, is left to the unerring hand of time. Whatever is predicted in such general terms, however clearly expressed, must remain in impenetrable secrecy, till the prophetic event arrive, with its adjuncts, circumstances, and exact occurrences, to disclose it [42].—"And the Lord answered and said, Write the vision and make it plain upon tables, that he may run who readeth it. For the vision is yet for an appointed time, and at the end it shall speak, and not lie—though it tarry, wait thou for it, because it will surely come, it will not tarry [43]."

[42] Quod si—prophetiæ ipsius indoles, in extremis tantum rerum lineamentis effingendis, et in generalibus affectionibus describendis amplificandisque, præcipue versetur; exinde satis intelligi potest, primo, quanto cum suo emolumento poesi adjutrice et administra utatur, quamque ad omnes suas rationes accommodatam habeat dictionem parabolicam; cujus ea natura est, ut magnam præbeat copiam et varietatem communium imaginum, quibus aliqua materies late ampleque in universum exornari possit.—Lowth, Præl. xx.

[43] Habakkuk, ii. 2, 3.

directly used, and often, where the predictions are not shadowed under these, but delivered in a plain narration of facts, as in the prophecy of Jonah; or in oratorical style, like many predictions of Ezekiel; or with mixture of both, like the whole of Daniel,—the language is still indirect and poetical, in its general character. Where the expression is more direct[46], the same obscurity is accomplished, by giving it an ambiguous and enigmatic cast.

Thus various and complex is the mode employed by the Spirit of Prophecy in the Holy Scriptures, to conceal from the most distant apprehensions of the human mind, the full import of its predictions, till they come to be unfolded by the event. This veil should place a just restraint on criticism, in judging and deciding on the words of this mysterious volume.

In one part of his work, the author of the Prelections acknowledges the free and singular genius of sacred poetry, which is possessed of a boldness and eccentricity repugnant to all

[46] See Ezekiel, xii. 13, and Jeremiah, xxxiv. 3.

artificial rules[47]; but elsewhere he has assigned this important reason, that it resulted from the impulse of the Divine Inspirer[48]. If, to these just observations, he had added the authority of St. Peter, that "prophecy came not by the will of man; but holy men of old spake, as they were moved, by the Spirit of God[49]:" such considerations might have induced him to attribute more to the divine agency, in moulding the language of the prophets to its celestial purpose. Such reflections would have smothered in the birth that spirit of criticism, of which he was the father; and which, in the hands of others more adventurous, and less judicious than himself, hath dishonoured, I had almost said disgraced, the volume of inspiration[50].

[47] Per omnia in verbis sensibusque sua quædam vis atque audacia, nullis mancipata legibus, liberum Hebreæ poeseos genium unice spirans.—Præl. x.

[48] Quod ad rerum ordinem ac dispositionem attinet, formamque legitimam, quæ in hac specie integrum poema conficiat; nihil sane statui potest, quod in universum videatur obtinere. Soluta plerumque, ut, par est, et libera, suo impetu fertur, nullas servans leges, sed materiæ rationem sequens, et Divini Spiritus impulsum.—Præl. xx.

[49] 2 Pet. i. 21.

[50] This very learned and ingenious prelate, to whom the Holy Scriptures are much indebted for delivering them from

Instead of indulging his genius, in a vain and visionary criticism, founded on classical

the rabbinical prejudices, by which, they had been for ages entangled and obscured, who, with a great share of biblical learning, united a correct and classical taste, endeavoured in his Prelections to open the sacred volume to the more general study of our academical youth, by giving them a taste of their superior beauties, in a critique similar to those which had been so successfully written on the heathen poets. "Enimvero quid est, cur Homeri, Pindari, Horatii scriptis celebrandis omnique laude cumulandis toties immoramur, Mosem interea, Davidem, Isaiam, silentio præterimus?—An id tandem statuendum est, eorum quidem hominum scripta, qui tantum modo effecerunt, quantum ingenio et facultate consequi potuerunt, ratione et via tractari oportere, et ad artis præscriptum et normam exigi: quæ vero altiorem habent originem, et Divini Spiritus afflatui vere tribuuntur, eorum vim etiam et venustatem suo lumine quodammodo elucere; sed nec doctrinæ institutis constare, nec artis finibus circumscribi posse?—Quamvis igitur ad occultos hujusce Nili cœlestis fontes haud fas sit penetrare, licebit tamen sancti fluminis cursum et flexiones sequi, aquarum auctus et recessus notare, ac rivos etiam quosdam tanquam in subjacentes campos deducere."—[Præl. ii.] The design is plausible, and that plausibility considerably increased by the flowers of diction. But the only plan upon which it can be executed, is upon the supposition, that though the Spirit of prophecy supplied the matter, the manner and the language were left to the natural genius of the inspired. "Alterum impetum mentis vocat Longinus τὸ περὶ τὰς νοήσεις ἀδρεπήβολον; alterum τὸ σφοδρὸν καὶ ἐνθουσιαστικὸν πάθος, appellat. Utrumque ita in hoc argumento usurpamus, atque ita sacris vatibus tribuimus, ut nihil derogemus Divini Spiritus afflatui: etsi suam interea vim propriæ cujusque scriptoris naturæ atque ingenio concedamus. Neque enim instinctu divino ita comitatur vatis animus, ut protinus obruatur hominis

and sentimental taste, the sober theologist will find himself more useful employment, in

indoles; attolluntur et eriguntur, non extinguuntur aut occultantur naturalis ingenii facultates; et quanquam Mosis, Davidis, et Isaiæ scripta semper spirent quiddam tam excelsum tamque cœleste, ut plane videantur divinitus edita, nihilo tamen minus in iis Mosem, Davidem, et Isaiam semper agnoscimus."—[Præl. xvi.] But, even if we admit the supposition in part, the important question occurs, How far is it to go? What human critic shall determine, that the Holy Spirit had no influence at all, upon the manner or the language of the prophet, in which his enunciations were delivered? Or what human critic shall say precisely, how far his afflatus was concerned? What human critic draw the line between the Inspirer and the man? The different and characteristic styles of Moses, David, and Isaiah, will go a very little way, if any at all, to this important decision: for, when the Spirit employs human instruments, he takes them, as they are, and by the act of employing them, makes them his own; so that, whether Amos spoke as a shepherd, or David as a king, they uttered the words of God.

These difficulties beset this ingenious critic, and not all his management and address were able to surmount them. At a time, when biblical learning was making such laudable progress under his auspices, it is much to be deplored, that he essayed this critical refinement upon the sacred Scriptures. Though that discreet and cautious judgment, by which he was distinguished, restrained his pen within moderate bounds, the high reputation which the novelty and plausibility of the undertaking conferred on the work, the distinguished eminence of the author, and the fascinating elegance of his language, produced their effect on the minds of others, in stimulating them to an imitation of his method, that they might participate some of his fame. These possessing less of that ingenuity and high classical taste, in which the chief value of the work consists, could only distinguish

developing the various methods of concealment, furnished by the parabolical style, from

themselves by an outrage of its faults. Mounted upon this critical Pegasus, an eminent professor, in an university renowned of late for biblical learning, proceeds,—"And, if the poet Ezekiel has here and there overloaded his subject with ornaments, we shall be unable to refuse our admiration to his genius, notwithstanding these defects.—It almost seems, that the poet himself felt the hurtful consequences of his ample representations; under this, he endeavoured to prevent them; first, by giving a general sketch, and then every thing more determinate and in detail. But I doubt whether he has thus prevented them. This method is rather productive of another hurtful consequence;—he occasionally seems to correct himself, but really does not; that he occasionally seems to retract something, which, when accurately considered, is not the fact. The author of the Revelation, whose poetry is in the same style with that of Ezekiel, and full of imagination, for the most part, has avoided the rocks on which his predecessor stranded; and for the most part, has happily cut off the wild shoots of a heated imagination. He also has fictions and giant-forms: but he has produced them, only so far as to give the reader the full image before his eyes; he does not pursue them minutely,—and he does not distract or pain his reader. But, as Ezekiel describes, designs, paints, and exhausts all minutiæ, he sometimes injures his poems. According to my taste, he should have broken off after he had given the chariot-throne, restless wheels, and cherubim full of living motions; but, as he continues to describe the motion of the throne by his wonderful forms, he makes unpleasing impressions. Even where these consequences do not arise, from the prolix details of the prophet, he is misled by them to other faults which are equally striking. They sometimes carry him to things which are unnatural. Thus he has acted against nature in slaying what is not food. How much superior is Isaiah in a similar representation! And should not the great profusion of

principles contained in scripture; in analyzing and arranging the different kinds of

learning in the elegy and funeral lamentation over Tyre, when she was destroyed, be quite removed from this piece? On the contrary, it was a happy invention that his lofty poems are sometimes interrupted by short speeches. They are not only useful for the illustration of his symbols, but also for the repose of the mind. By this change, his readers are agreeably entertained; and their imagination finds resting places, so as to soar more easily after the imagination of the poet. Ezekiel, therefore, remains a great poet, full of originality notwithstanding his faults; and, in my opinion, whoever censures him as if he were only an imitator of the old prophets, can never feel his power."—Eickhorn's Introd. to his Old Testament. See Newcome's Introduction to Ezekiel, pp. 24—26.

Had this learned professor indulged his critical cavallo, in trampling so unmercifully upon the works of the great poet, who feigned the ten years' siege of Troy, as freely as upon those of the prophet, who announced the destruction of the temple of Jerusalem,—who "saw the vision of God," [Ezekiel, chap. i.] and spoke the "words of Jehovah,"—he would have been most deservedly torn to pieces by a whole host of critics.—The impetus of this critic, though neither the τὸ ἀδρεπήβολον, nor the τὸ ἐνθουσιαστικὸν, is surely the τὸ μανιακὸν πάθος.

Without thus indulging his critical abilities, the judicious Addison was only a distant and humble admirer.—"As the Jewish nation produced men of great genius, without considering them as inspired writers, they have transmitted to us many hymns and divine odes, which excel those that are delivered down to us by the Greeks and Romans, in the poetry, as much as in the subject to which it was consecrated."—Spectator, No. 453.

But, perhaps, the general idea of Scripture poetry, as given by a French writer, is still more just, because it does not separate the poetry from the inspiration. "It is the true

prophecy, and unravelling "the great mystery of godliness," by assorting predictions with events, and types with their antitypes[52].

language of poetry, of prophecy, and of revelation: a celestial fire animates and transports it. What ardour in its odes! What sublime images in the visions of Isaiah! How pathetic and affecting are the tears of Jeremiah! One there finds beauties and models of every kind. Nothing is more capable than this language of elevating a poetic spirit; and we do not fear to assert that the Bible, superior to Homer and Virgil in many places, can inspire still more than they that rare and singular genius which is the portion of those who dedicate themselves to poetry." And this learned Frenchman might have added the reason of this superiority, by attributing it to its true cause, the Inspirer himself.

The authority of our great philosopher is decided on the question. "Alter autem interpretandi modus, quem pro excessu statuimus, videtur primo intuitu sobrius et castus, sed tamen et scripturas ipsas dedecorat, et plurimo ecclesiam detrimento officit. Is est, ut verbo dicam, quando scripturæ divinitus inspiratæ eodem quo humana scripta explicantur modo."—Bacon. De Augm. Scient. lib. ix. See also his Advancement of Learning, book ii. at the conclusion.

[52] Tale esse debet hujus operis institutum, ut cum singulis ex scripturis prophetiis eventuum veritas conjungatur, idque per omnes mundi ætates, tum ad confirmationem fidei, tum ad instituendam disciplinam quandam et peritiam in interpretatione prophetiarum, quæ adhuc restant complendæ, &c. —Bacon. De Augm. Scient. lib. ii. cap. 11.

On this subject, the student will find much advantage in consulting Conybeare's Bampton Lectures, on the secondary and spiritual interpretation of Scripture; also Bishop Marsh's Lectures, part iv.; and Jones on the Figurative Language of Scripture.—*Editor.*

Much of the obscurity, in which, the prophetic writings were involved at their first delivery, is now dispelled, and a new field of investigation is opened to the theologist[53]. Although the prophetic system, that vast and various apparatus, arranged by the invisible hand of Him, " with whom one day is as a thousand years, and a thousand years as one day," for the testimony of his Son, will not be entirely evolved, till the present material system be destroyed; time, by interpreting many predictions in their correspondent events, hath supplied such grounds of analogical reasoning, as may lead us into the

[53] Equidem in vaticiniis contra fit ac in cæteris omnibus sacræ poeseos partibus; illa tum sunt maxime obscura, cum primum sunt edita; quæque aliis tenebras inducit, illis infert lucem, vetustas. Adeoque ista obscuritas, quæ in hoc genere ab initio insederat, aliqua ex parte jam tollitur: multa sunt, quæ explicavit ipse rei eventus, certissimus oraculorum interpres: multa, quibus Divinus ille Spiritus, ea quæ primum induxerat, involucra dignatus est detrahere; plerisque aliquam lucem intulit ejusdem sacratissimis institutionibus clarius illustrata religionum Judaicarum ratio. Ita fit, ut quæ pars sacræ poeseos et singularem quandam naturam et maximam in se difficultatem habet, ad eam tamen cognoscendam et perspiciendam meliore jam conditione accedamus, iis subsidiis et adminiculis instructi, quibus plane veteres Hebræi, quæque ne ipsis quidem vatibus Dei internunciis concessa sunt.—Lowth. Præl, xi.

structure and economy of prophetic language, and prepare us to acknowledge the accomplishment of others, when their events arrive. Though intentionally mysterious, the parabolical style is uniform and consistent, and of course reducible to rule; one part supplying the key to another. It was the usual mode of writing at the time the prophecies were delivered, and is constructed on such general principles, as make it a theme of rational investigation. Another key is, therefore, to be found by a learned and diligent search into the archives of ancient and oriental learning; in the images of the eastern and western poets; in the subsisting monuments of Egyptian hieroglyphics, from which all eastern writings took its symbolic cast; in those pagan ceremonies and superstitions, which drew their origin from the Jewish; and, above all, in the Holy Scriptures themselves, which, although the productions of many different pens, employ the same symbols, images, and other figures, which were intended by their one omniscient Dictator to be interpreters of each other.

By an extensive comparison of words,

phrases, and figures, respectively with each other, the judicious interpreter may hope to develop the prophetic meaning, which is designedly and curiously concealed by the Divine Spirit, as one amongst other reasons, that it might afford a virtuous and sublime employment to the human mind. And if the learned, instead of wasting their labour in the fabrication of hypothetical system, their learning in disputation, and their ingenuity in critical refinement, by an extensive induction and judicious arrangement of particulars, collected out of the Bible and other monuments of antiquity, would supply the theological student with some general rules or principles of interpretation (which is a great desideratum in theology), they would bring an offering, as acceptable to the student in theology, as it would be useful to the cause of scriptural information[54].

Whilst other proofs of our religion are

[54] Something of this kind has been done by the learned Daubuz, in the Preliminary Discourse and Symbolical Dictionary, introductory to his Commentary on the Revelations. In 1730, Mr. Lancaster abridged and new-modelled this learned work in a quarto volume, dedicated to Dr. Potter,

perhaps somewhat weakened and obscured by time, the evidence of prophecy, which challenges the peculiar cultivation of the student, is gathering strength and clearness, and gratifying him with an immediate and personal conviction. In this important department of theological study, as his application will be made at the same time to history, whilst he is strengthened in the evidence of divine revelation, he will derive a sublime and endearing enjoyment, from contemplating the ways of men and the wonders of Providence.

Thus we see the province of imagination, that exalted faculty of the human mind, by which its finest affections are sublimed and qualified for the imitation of the goodness, the adoration of the wisdom, and the admiration of the power of God, extensively employed in the act of discovering his will

then Bishop of Oxford, hoping that, under the patronage of so great a name, this valuable work would have met with a general reception. It has, however, shared the fate of many of the best of books, to be known by very few, whilst many of the worst are in the libraries and hands of all.

to men; forming that indirect and poetical vehicle, through which the truths and evidences of our religion are conveyed.—"In matters of faith and religion," says Lord Bacon, "the imagination is elevated above the reason. Not that divine illumination resideth in the imagination (nay, rather in the highest tower of the mind and understanding); but as in moral virtues, divine grace uses the motives of the will; so in illumination, it makes use of the imagination: which is the cause that religion hath ever sought an access to the mind, through similitudes, types, parables, and visions[55]."

[55] De Augm. Scient. lib. v. c. 1.

Should any modern free-thinker feel disposed to smile at this observation of Bacon, it may perhaps check a too hasty decision, by his remembering the more sober neutrality of the Stagirite.—Περὶ δὲ τῆς μαντικῆς, τῆς ἐν τοῖς ὕπνοις γενομένης, καὶ λεγομένης συμβαίνειν ἀπὸ τῶν ἐνυπνίων· οὔτε καταφρονεῖν ῥᾴδιον, οὔτε πεισθῆναι.—Aristot. De Divin. vol. i. p. 607. Edit. Du Val.

CHAP. VI.

TRANSLATION OF THE HOLY SCRIPTURES.

THAT the sacred volume, in manner as well as in matter, is different from all other books, though dictated and recorded in human language, as the indispensable vehicle or instrument of communication, by which the testimony of God, is conveyed to men—is a theological axiom, which has, I hope, been sufficiently established in the preceding pages. This axiom should have a powerful influence upon the particular study and interpretation of that mysterious book.

Other books contain the things which are "on earth," the observations, experiments, and reasonings of men on material objects, their thoughts, reflections, and reasonings on mental subjects, their testimony of facts and occurrences, or their poetic imitations. These are conveyed in a style as direct as possible, and even when figurative, are

intended to be plain and devoid of mystery. But the book of God contains "the things that are in heaven," and they are recorded in a language, which is analogical and indirect, which is often figurative, and designedly obscure.

Whilst we view with pleasure the study of the Holy Scriptures shaking off the fetters of hypothetical system, and moving on in a more free and philosophical direction; whilst we rejoice that the science of theology is liberated from the forms of an ignorant and scholastic logic, and behold with satisfaction the Volume of Inspiration laid open to the discussion of a rational and learned, not visionary criticism, from which we may indulge the hope of receiving a faithful interpretation of all its parts; we are bound to hold in awful recollection, that it is divine in its origin and mysterious in its form; that though "the things which are revealed belong to us and to our children," to investigate and to contemplate "the secret things," which are therein concealed, "belong unto the Lord our God;" so to remain, till in his wisdom he open them more fully to our

understandings. This solemn consideration should be kept perpetually in mind; lest, by exulting too much in the glorious liberty we have gained, critics and interpreters, commentators and translators, grow too bold in their literary career; and after snapping asunder the chains of prejudice and form, should rush into the opposite, and more dangerous extreme—capricious judgment and fanciful invention.

With this axiom, therefore, constantly in view, we shall descend with advantage from the general interpretation of the Holy Scriptures, through the principles on which it is to be conducted, to their particular interpretation.

The former constitutes the office of the theological critic and commentator; the latter that of the theological critic and translator. These offices, however connected and allied, are so distinct in their peculiar exercise, that they should never be confounded. The province of the commentator is more extensive and enlarged; that of the translator more verbal and confined. Though

both offices may be discharged by one individual, unless he recognise this distinction he will probably do more injury than service, to the cause of scriptural learning. The view, however, which has been taken of the former will lead us to the true principle of criticism and the just method of translating, according to which the latter should be conducted. The divine analogy of scripture language which pervades the sacred volume, and the frequent use of the parabolical style, so important in its intention, will strongly remind the translator of the delicacy and difficulty of his undertaking. They will admonish him, that the task of presenting the Bible in a new language is peculiarly sacred, to be executed with far more caution and fidelity, than that of translating any other book.

Amongst the many blessings which Providence hath bestowed on this favoured country, in different periods of its history, is the English Translation of the Bible, appointed to be read in Churches, which for some ages it has enjoyed. Whilst gratitude compels us to set a high value upon a work, by which

our forefathers were instructed to serve their God, justice will also oblige us to think and speak favourably of its intrinsic merit. The men, to whose learning and labour we are indebted for this translation, were selected for the task by the discernment of a pious and learned prince, and were endowed with every qualification of heart and understanding, and possessed of every advantage of learning and erudition for the execution of the work, which the state of biblical knowledge, and the religious complexion of their times afforded. They availed themselves largely and judiciously of the learning and labours of former translators, both Latin and English, and it may be considered, as an encomium adequate to the best efforts of human ability, if we say, that, upon the whole, they far excelled all their predecessors. Their language is plain, nervous, dignified; and whatever be the defects of this translation in other respects, this version will, in general, ever remain the object of our admiration and gratitude.

After paying this tribute of praise, so justly due, to our English version, truth obliges us

to own, that the translators, however able, laboured under unavoidable difficulties and disadvantages, by which they were obstructed, at that time, in the execution. These are now removed, and if, from the present improved and improving state of biblical learning, the change of circumstances in favour of the present age, and with the aid of their excellent translation, we presume, that, as they improved on their predecessors, they may also be improved on in their turn,—the presumption, at least the hope, can neither appear ungenerous towards them, nor unreasonable in itself.

To procure an accurate and perfect text, is the first step towards a good translation. Without this advantage, whatever other excellence the version may possess, it can be at best only a perfect copy of an imperfect original[1].

Such a text can be obtained only by a comprehensive investigation, and critical examination of the most authentic monu-

[1] See Bishop Marsh's Lectures, parts i. ii.

ments and authorities of the sacred volume, by an extensive collation of ancient manuscripts, and by the collateral elucidations of more ancient versions from manuscripts more perfect than any which now exist.

It is the chief disadvantage of our English version of the Old Testament, that it was formed on the Hebrew text,—the text of these later ages, miserably changed, corrupted, and adulterated (and even that imperfectly interpreted); rather than on the Septuagint version, which was made from more perfect copies, in an early age, when the ancient Hebrew must necessarily have been far better understood. It was translated by a constellation of the most learned Hellenistic Jews, from one of the most imperfect, into the most perfect and universal tongue which was ever spoken. From this Septuagint version, our Lord and his apostles have adduced nearly all their quotations in the New Testament. In consequence of this radical error, the immediate relation and connexion between the Old and New Testaments is much injured, as the New Testament was translated from the Greek, in

which it was written. The consequence is, that our Scripture phraseology is not so uniform as it ought to be, as was manifestly designed by the Inspirer, and as our Lord and his apostles have exemplified by their numerous quotations in the exact words of the Septuagint.

This statement of the case will, I know, not meet with the assent and approbation of some, who affect great and superior learning, from having studied the Hebrew and other oriental tongues, and whose reputation for a study which is little understood, prevails with too many, blindly to subscribe to their opinion. But, from the native imperfection of all original languages, from the great difficulty of understanding them in ages so far distant from their living use, and above all, from the sanction of the practice and authority of Christ and his apostles, I will maintain this opinion of the paramount importance of the LXX version. I would not undervalue the Hebrew manuscripts. I contend only, that the Greek translation should be made the standing basis of an English version of the Old Testament, even as the Greek

text is that of the version of the New; and that the Hebrew and other ancient versions should be consulted and collated with it, that any occasional light and assistance might be derived.

The imperfect state of biblical learning, particularly grammatical, thwarted at the time the success of our English translators, on account of which, they could not have recourse to documents and authorities sufficient to prepare a model thus corrected and improved. Too confidently persuaded of the genuineness of the Masoretic text, corrupted by the ignorance and inaccuracy of transcribers, and disguised by the punctuations and sinister practices of the more modern Jews, devoted to rabbinical prejudices which it was made to countenance, and from want of more ancient and authentic copies,—they translated from false and imperfect originals[2]. However exact and scrupulously faithful in verbal translation, depending entirely upon these, and neglecting more ancient and genuine authorities, their version would unavoidably possess all their prejudices and defects;

[2] See Lowth's Preface to Isaiah, and Kennicott's Dissertations.

whilst, by too much depending on modern lexicons, they have occasionally misinterpreted the meaning of many separate words.

When the true text is determined and restored, it is the next qualification of the scriptural translator, on the principles of just criticism and by a rational method of interpretation, to express the exact sense of the author fairly and impartially. It is not, however, to be disguised, that attachment to sect and the love of system, inflamed by habits of disputation and polemical divinity, though more temperate in these translators, than in some of their predecessors, has occasionally produced an insensible bias on their judgment.

To these radical and permanent causes of imperfection, in the translators of the present version, another may be added, which is the effect of time and accident. In the constant flux of the English, as of every living language, some of our words have lost their meaning and become obsolete; others have changed, and become antiquated; whilst in many places, the grammatical construction is awkward, and occasionally confused.

From these and other reasons which might

be assigned, particularly the want of uniformity from the cause already mentioned, we need not hesitate to pronounce, that in our present translation, such mistakes and imperfections were unavoidable, without any disrespect to the memory, or derogation from the acknowledged merit of these excellent and learned men.

Conscious of these numerous defects, and convinced of the paramount importance of the sacred volume, and of the duty incumbent upon us to preserve the genuine meaning of every word which it contains; it were almost as disgraceful, for this age of improved learning and reformed religion, (when the remains of every classical author are brought forward in elegant versions), to suffer the Bible to continue under the imperfections of the present authorised translation, as it was heretofore the reproach of ignorance and superstition, to prohibit its being translated at all.

Since the commencement of this century, biblical learning has greatly flourished in the universities of Europe; and it is, from being

conducted on just and rational principles, and from the joint studies of the learned of different countries and communities, joining hand in hand in promoting the great work, that the volume of Scripture may be restored to its purity and perfection. At length the rage for system and hypothesis has much subsided. We rejoice to see the ancient scholastic discipline on the decline; and we congratulate the learned, on turning their attention, from useless words and forms, to things of real importance, and on applying it to the genuine sources of theological truth, —biblical studies, languages and antiquities. Before this period, Capellus, with a bold and fearless hand, first essayed to remove the veil of superstition and credulity, which covered the errors and deformities of the Jewish originals, and thus emancipated the study of the Scriptures, from those Masoretic prepossessions and rabbinical prejudices, to which it had been so long confined. But to shake off these chains, so disgraceful and injurious to sound theology, and clear the way to the genuine interpretation of holy writ, was a work reserved for Houbigant, who though

too bold in some of his conjectural emendations of the sacred text, presented the world with an excellent version of the Old Testament, from a copy corrected with great learning, grammatical skill, and critical acumen, as a model for the imitation of all future improvers of biblical learning. As a sacred critic and translator, Houbigant holds the foremost rank, and is entitled to the choicest laurel. He has the honour to be followed by Lowth and Michaelis, who succeeded him in this high walk of sacred criticism; whose labours, though sometimes perhaps imitating the conjectural decisions of their leader, more than the principles of sacred criticism will sanction, are judicious and well-conducted upon the whole, and are followed and improved by learned men of our own and other nations. By their concurrent labours, since the charm was broken, many prejudices and obstacles are now removed, and thus the avenues to the sacred study of the Scriptures have been gradually laid open[3].

[3] Marsh's Lectures, part ii.

Under the direction of such leaders, sacred learning hath gone on improving and to be improved. The first duty consists, as we have observed, in an extensive and critical collation and comparison of manuscripts, parallel places, quotations, versions, and editions. In this laborious department of biblical learning, the lucubrations of Kennicott hold a distinguished rank. The second act, consequent on the former, is a new translation of the Bible, or rather perhaps an amended edition of the present. Some few of the learned, actuated more by an honest zeal for the present translation, than directed in judgment by a knowledge of the true merits of the question, have strenuously opposed this work, as in itself unnecessary, as hazardous in its execution, or even dangerous in its effect. Others, directed by better information, have been, and at this time are employed, in the useful, but arduous undertaking, with every advantage of sagacity, learning, and impartiality on their side, encouraging our ardent hopes, and promising to realise our

sanguine expectations[4]. They are not, however, exactly agreed as to the just and true method of scriptural translation,—a question of the last importance to the success of this great work, and which should be previously settled and determined. Without some general agreement of principles, there can be no uniformity of purpose or effect. But, from the liberal, friendly, and unassuming spirit which they breathe towards each other, and which is so manly and generous, as to win the approbation and assistance of every one who can in the least contribute to the promotion of this noble design, we may cherish a lively hope, that one uniform, rational, and judicious plan will be finally adopted and invariably pursued.

When the text of the original has been carefully and scrupulously adjusted, it is the sound and accurate judgment, which apprehends the precise meaning of the words, distinguishes the idioms, and considers the

[4] Bp. Newcome, Dr. Blaney, Dr. Geddes, Dr. Campbell, Dr. Macknight, and others.

genius of the respective languages of the original and the version, which constitutes the general qualification of a competent translator. Without this discrimination, he would be unable to give a just representation of any composition, whether profane or sacred. But the exact method, and the particular rules, by which the work is to be conducted, should be formed on principles, derived from the nature and genius of the original documents.

The theological axiom, therefore, which has been laid down in the preceding pages,—"That the Holy Bible, in its origin and formation, is essentially distinct from all books of human composition, however different they may be from each other,"—will require, that distinct rules should be observed in its translation, as well as exposition. In support of this opinion, let me again appeal to the judgment of Lord Bacon, whose authority, on all subjects of literature, is justly acknowledged to be supreme and decisive. "The Scriptures being given by inspiration, and not by human reason, do differ from all books in the Author; which by consequence

doth draw on some difference to be used by the expositor[5]."

How far human judgment may be exercised in translating the word of God, is the great question, in the precise solution of which many different opinions always have divided, and still continue to divide the learned. Till this question be decided on a firm and philosophic ground, though our present translators may possess more biblical knowledge and enjoy more advantages than their predecessors, their labours must exhibit an unequal and imperfect representation of the sacred text. On this topic, therefore, we shall now venture a few observations.

Since the Bible has one thing in common with all other books,—that it is written in human language—it is the chief cause of our different opinions, and most certainly the chief cause of ill-success, that learned men, some more, and some less, according to their personal taste and private judgment, bring their rules and ideas of translation, as well as of interpretation, from classical books, to the

[5] The Advancement of Learning, b. ii. p. 326, edit. 1633.

sacred volume. "This manner of interpreting," says Lord Bacon, "seems, at first sight, sober and chaste; yet notwithstanding, it both dishonoureth Scripture, and is a great prejudice and detriment to the church: and this is, to speak in a word, when divinely inspired Scriptures are expounded, after the same manner, that human writings are. For it must be remembered, that there are two points known to God, the author of Scripture, which man's nature cannot comprehend, that is, the secrets of the heart, and the successions of times, which do make a just and sound difference between the manner of exposition of the Scriptures, and all other books. For it is an excellent observation, which hath been made upon the answers of our Saviour Christ, to many of the questions, which were propounded to him,—that they are impertinent to the question demanded. The reason whereof is, that, not being like man, which knows man's thoughts by his words, but knowing man's thoughts immediately and of himself, he never answered their words, but their *thoughts*. And another reason is, that he spake, not only to them that were then

present, but to us also, who now live, and to men of every age and place, to whom the Gospel shall be preached; which sense, in many places of scripture must take place. Much in like manner, it is with the Scriptures, which, being written to the thoughts of men, and to the succession and vicissitude of all ages, with a certain foresight of all heresies, contradictions, differing and mutable estates of the church, as well in general as of the elect in special, are not to be interpreted only, according to the latitude of the proper sense of the place and respectively towards that present occasion, whereupon the words were uttered, or in precise congruity or contexture with the words before or after, or in contemplation of the principal scope of the place;— but have in themselves, not only totally and collectively, but distinctively in clauses and words, infinite springs and streams of doctrine to water the church in every part; and therefore since the literal, is, as it were, the main stream or river; so the moral sense chiefly, and, sometimes the allegorical or typical, are they whereof the church hath most use. Not that I wish men to be bold in allegories, or

indulgent, or light in allusions ; but, that I do much condemn that interpretation of the Scripture, which is only, after the manner that men use to interpret a profane book[6]."

These observations apply to particular, rather than to general interpretation ; and if our translators would honour this instruction of our great luminary of science, with the attention it deserves, it would supply them with a general principle, philosophically grounded, from which, certain rules of translating would be easily deduced, and by which they might uniformly and successfully conduct their labours. And surely men, who are equally distinguished for their candour and learning, will not disdain to be directed in their interpretation of the volume of Grace, by the light which has led Newton through that of Nature, to the confines of the universe. This principle will admonish them, that, while unfolding the oracles of God, by presenting them in a vernacular tongue to the inhabitants of whole nations, they " tread on holy

[6] This extract is taken partly from his Latin treatise De Augm. Scient. lib. ix. and partly from his English work " Of the Advancement of Learning," b. ii. p. 329.

ground." It will warn them, "to put their shoes from off their feet," and to advance with fear and trembling; lest by a mixture of human art, they injure, or misrepresent, the dictates of Him, who hath awfully declared —"heaven and earth shall pass away,— but my Word shall not pass away[7]."

As it is his duty to give a faithful picture of the original, it is a rule of the first importance for the successful translator of the Holy Scriptures, though one of the most difficult to put effectually in practice, to divest himself of every kind of prejudice or bias. Prejudice insinuates itself insensibly into the mind, and is there so confirmed by time and habit, that it is the enemy in our own bosom, the most difficult to conquer. But prejudices in religion, imbibed at the breast, and cherished, not only with fondness, but with eager and intemperate zeal, are still more obstinate and inveterate than others. To avoid all partial and private interpretation, the bane of sound

[7] Matt. xxiv. 35.

theology, he should banish from his mind all systems and hypotheses of human invention. He should divest himself of those narrow habits of thinking, which he may have contracted in the use of a dogmatical and artificial logic. He should forget the very persuasion, however orthodox and pure, in which he was bred. He should be constantly and religiously on his guard, lest the spirit of a sect supersede that of a Christian, and lest he show himself the disciple of man, rather than "taught of God[8]."

Yet, since human language hath been

[8] In this fundamental rule, all our present translators pronounce themselves agreed.

"The critical sense of passages should be considered, and not the opinions of any denomination of Christians.—The translation should be philological, not controversial."—Bp. Newcome's Rule xii. Pref. to Translation of the Twelve Minor Prophets, p. 37.

"Unwedded to systems of any kind, literary, physical, or religious, a translator of the Bible should sit down to render his author, with the same impartiality, he would sit down to render Thucydides or Xenophon. He should try to forget that he belongs to any particular society of Christians; be extremely jealous of his own rational prepossessions; keep all theological consequences, as far out of his sight as possible, and investigate the meaning of his original, by the rules only of sound and sober criticism, regardless of pleasing or displeasing any party."—Dr. Geddes' Prospectus, p. 141, 142.

"Of such consequence it is to a translator, to banish all

employed as the vehicle of divine revelation, however analogically expressed, we need not hesitate in concluding, that it is to be understood and construed, according to the grammar of the tongue, in which the revelation was given, and to be translated according to that, into which the version is to be rendered.

Thus far, the laws of translation, whether sacred or profane, perfectly coincide. In other respects they materially differ, according to the different nature of the works, on which the translator is employed, as Lord Bacon has judiciously observed. And first, in point of propriety—

party considerations, to forget, as far as possible, that he is connected with any party, and to be ever on his guard, lest the spirit of the sect absorb the spirit of the Christian, and he appear to be the follower of some human teacher,—of Calvin, Arminius, Socinus, Pelagius, Arius, or Athanasius, than of our only divine and rightful teacher Christ."—Dr. Campbell's Dissertations to his Translation of the Gospels, p. 518.

"A translator is bound to abstract from, and, as far as possible, forget all sects and systems, together with the polemic jargon, which they have been the occasion of introducing. His aim ought to be invariably to give the untainted sentiments of the author, and to express himself, in such manner, as men would do, amongst whom such disputes had never been agitated."—Ibid. p. 510.

I. Presuming, that human judgment is generally commensurate with human compositions, the classic translator, if duly qualified for his office, sits down to the task of rendering it in another language, on terms of familiarity, nay, almost of equality with his author. That the new dress which he is forming may sit with ease, and appear with elegance; that it may lose the stiffness, which the peculiarities of the original language would entail, he gives both the words and sentences, such an idiomatical change, as may enable him, to cast the sense more freely into the mould of the translation, and thus to give it the air of originality. In short, he takes the thoughts of the author, and exhibits them in his own style and expression[9].

But, so far from presuming that his judgment is equally commensurate with a divine production, the devout translator of the Holy Scriptures will sit down to the work, impressed with the sense of this awful truth,—

[9] Vide Huet. de Interpretatione et de claris Interpretibus. Stadæ, 1680; and Tytler on Translation.—*Editor.*

that—"the thoughts of God are not as man's thoughts, nor his ways," or words, "as those of men;" that the matter of Revelation is more the object of faith, than of intellect, and that the form is sacred, and frequently ambiguous[10]. He will not, therefore, feel himself, on the same terms of ease and familiarity with his author, nor represent his words and sentences, with that freedom of change, which his own judgment might direct, his fancy suggest, or which he might think the genius or elegance of his language would require; conscious that, as they stand in the original, they may be intended to convey a meaning, which by such change might be injured or lost. He will consequently endeavour, first, to discover the true literal, and grammatical sense; and then content himself, with making choice of such words and sentences, as may, in his own language, most fully and literally express its meaning. In the propriety of this rule, all our translators

[10] "I do much condemn," says Bacon, "that interpretation of Scripture, which is only, after the manner, that men use to interpret a profane book."—Advance of Learning, book ii.

seem agreed[11]; though, from their difference of judgment in its execution, they vary widely, in the practice.

As there are no two languages, which have a perfect synonymy and coincidence of words, the observance of this rule will often become a task of the greatest difficulty. To cope with this obstacle, the translator should possess a very extensive knowledge of both languages. He should discriminate with the nicest accuracy, and select with the maturest deliberation.

[11] " The first and principal business of a translator is to give the plain and grammatical sense of his author, the obvious meaning of his words, phrases, and sentences; and to express them in the language, into which, he translates, as far as may be, in equivalent words, phrases, and sentences. Whatever indulgence may be allowed him in other respects, however excusable he may be, if he fail of attaining the elegance, the spirit, the sublimity of his author (which will generally be in some degree the case, if his author excels at all in these qualities); want of fidelity admits of no excuse, and is entitled to no indulgence. This is peculiarly so, in subjects of high importance, such as the Holy Scriptures; in which, so much depends on the phrase and expression; and particularly in the prophetic Books of Scripture, where, from the letter, are often deduced deep and recondite senses, which must owe all their weight and solidity, to the just and accurate interpretation of the words of the prophecy. For, whatever senses are supposed to be included in the prophet's words, spiritual, mystical, allegorical, analogical, or the like; they must all entirely depend on the literal sense. This is

According to the direction of Houbigant, "Non fieri potest, ut duarum linguarum paria verba semper paribus respondeant; verba sunt ponderanda, non numeranda[12]." Even words which correspond etymologically, do not always correspond virtually; so that, however much a translation of the Bible, which is strictly literal might be desired, it is impossible, from these differences in all languages, that a good literal translation should ever be obtained[13]. It is well known,

the only foundation, upon which, such interpretations can be securely raised; and if this is not firmly and securely established, all that is built upon it will fall to the ground."—Bp. Lowth's Preliminary Dissertation to Isaiah, p. lii.

Bishop Newcome's first rule is,—"The translator should express every word of the original, by a literal rendering, where the English idiom admits of it, and where not only purity, but perspicuity and dignity of expression can be preserved."—Pref. to Translation of the Twelve Minor Prophets, p. xvii.

"First of all, a translator of the Bible ought to be faithful; that is, ought to express all the meaning, and no more, than the meaning of the original."—Geddes' Prospectus, p. 126.

"The first thing a translator has to do, is to give a just and clear representation of the sense of the original, which is the most essential of all."—Campbell, Dissertation x. part i.

[12] Prolegomena, cap. v. art. 3.

[13] "It is absolutely impossible to translate literally from any language whatever, without being often barbarous, obscure, and equivocal."—Dr. Geddes' Prospectus, p. 127.

that those who have been most scrupulously attached to the letter, are, on account of these differences, often the furthest from the literal and grammatical sense,—the first object of all scriptural translation[14].

This peculiar difficulty has beset all biblical translators, and divided them in their judgment of the proper nature and limits of their office. Some, and these learned men, on considering this difference, inherent in the texture and formation of languages, and observing, that those, who adhered the closest to the letter, were the furthest from the sense, have felt the difficulty attending a literal version insurmountable, and taken refuge, in a more loose and distant mode of translating. The idea of a literal translation of Scripture should not, however, be abandoned. Though words cannot be made to correspond to words, either as to their number, synonymy, or etymology; yet there is a middle way, though sometimes difficult to be found, by which, they may be brought to

[14] Pagninus and Montanus are less faithful guides than even Castalio, Michaelis, or Wynne.

correspond in equivalence and effect. Thus the translation, though not strictly, may be virtually literal. Such a translation, our principle, which considers the Bible as a divine production, not only countenances, but requires: and however others may indulge their genius, in taking greater liberty with the words of inspiration, consistency will support us in subscribing to the opinion of Beza, as far as the difference of the languages will admit,—"Quo propius abest a Græcis et Hebræis Latina interpretatio, eo mihi magis probanda videatur[15]."

But the idioms of language differ still more than the words, and the translator of a profane author would not be read or tolerated, who does not invariably make the change, and adopt that of his own language. In translating the sacred volume, the principle, which has been already laid down, will,

[15] Beza, Nov. Test. Dedicat.

"Where a verbal translation cannot be interwoven, one equivalent to it should be substituted, and the idiom [or the word] in the text should be literally rendered in the margin." —Bp. Newcome, rule iii. p. 23.

for the same important reasons, prescribe to its translator a different rule of conduct. To retain all the minute peculiarities, in an English translation, would, I acknowledge, be unnecessary, and indeed absurd. Fortunately however, for the close coincidence of idiom and phrase with the original, in all matters of more essential importance, there is a singular coincidence and similarity between the Hebrew and English tongues[16]. Many of the principal Hebraisms had long appeared, in an English dress, in former translations, and are become so familiar by frequency of repetition, that the ear would now feel itself strange, and even offended, by their omission. They possess also that dignity, which antiquity confers on every thing, with which, it is associated. Imparting a warmth and

[16] "Our language easily moulds itself into the Hebrew form; and it rarely happens, that we are under any necessity of having recourse to paraphrase and circumlocution, to express the full meaning of the text. Even when the syntactical arrangement is different, there is a striking equipollence of simplicity, conciseness, and energy, to be attained, which, perhaps, no modern language can boast of; and which is not found in ours, with regard to any other language, but the Hebrew."—Dr. Geddes' Prospectus, note, p. 128.

animation, unknown to modern languages, they raise the English above its natural level, and qualify it to become the consecrated vehicle of theological truth.

"There is a certain coldness," says the judicious Addison, "in the phrases of our European languages, when compared with the oriental forms of speech; and it happens very opportunely, that the Hebrew idiom runs into the English tongue, with a peculiar grace and beauty. Our language has received innumerable elegances and improvements from that infusion of Hebraisms, which are derived to it out of the poetical passages in holy writ. They give force and energy to our expression, warm and animate our language, and convey our thoughts in more ardent and intense phrases, than any that are to be met with, in our own tongue. There is something so pathetic in this kind of diction, that it often sets the mind in a flame, and makes our hearts burn within us. If any one should judge of the beauties of poetry, which are to be met with in the divine writings, and examine how kindly the Hebrew manners of speech mix and

incorporate with the English language; after having perused the book of Psalms, let him read a literal translation of Horace and Pindar, and he will find, in these two last, such an absurdity and confusion of style, with such a comparative poverty of imagination, as will make him very sensible of what I have been here advancing[17]."

Castalio, both in biblical learning and critical judgment, was a superior translator; but, by an unhappy attempt, to leave the Hebrew idiom, and clothe his version in all the elegance of the Latin phraseology and construction,—upon this principle of profane translation injudiciously applied,—he has not only abandoned the fidelity, as well as others, but has lost all the dignity and simplicity of Holy Scripture. Instead of being all that is elegant, and graceful, and ornamental, as he expected; every thing is finical and affected, in this fancy-dress; and all the redundance of the polish, submits not only to the simplicity of his rival Beza, but often to the more servile representations of Tremellius and

[17] Spectator.

Junius,—nay, occasionally—even to the barbarisms of Montanus and Pagninus[18].

For these, among other reasons, a critical revision and improved edition of the old, seems more desirable, than a new translation. Not only the Hebrew idiom, but as many of the words as possible of the old translation, should be retained, on account of their simplicity and dignity, and also to indulge the honest prepossessions of the people[19]. The remark, from whatever quarter it may have come, is very justly made,—"that common

[18] On the comparative merits of these Latin translators, consult Simon's Critical History; Huet. de Interpret. lib. ii. cap. 3; and Macknight's Preface and Preliminary Essays before his Translation of the Epistles.—*Editor.*

[19] When the terms and phrases, employed by former interpreters, are well adapted for conveying the sense of the author, they are justly preferred to other words equally expressive and proper; but which, not having been used by former interpreters, are not current in that application."—Campbell's Diss. xi. p. 521.

"Words that are too fine, too learned, or too modern, are repugnant to the style of the sacred penmen, are too flowery, affected, and modish, to suit their style, which is eminently natural, simple, and dignified. And, on the other hand, words which are low and vulgar, are still more derogatory, from the exalted sublimity of the subject and language of Holy Scripture."—Ibid. Diss. xi. p. 570.

"The simple and ancient turn of the present version should be retained."—Bp. Newcome, rule vi. p. 32.

minds can discriminate with difficulty between the language and the substance; and in losing the one, they will be, in no little anxiety about the other; besides, that the long use of writings avowedly sacred, gives a venerable air to the language, and seems almost to consecrate it to the service of religion[20]."

But, to sanction this general reasoning in support of the preservation of the ancient idiom, we have two precedents, whose authority will be admitted as unquestionable. The Septuagint is a translation of the Old Testament, of very high, if not of divine authority; in which, though the language be Greek, the idiom is uniformly Hebrew. And in the New Testament itself, though the words are Greek, the ideas are Jewish, and the idiom Hebrew; which afford a convincing proof, that the original idiom should at any rate be preserved[21].

[20] Critical Review, Nov. 1789.

[21] A Septuagint edition of the Greek Testament, that is, an edition, illustrated throughout by references to the LXX. is a great desideratum. Such an edition has long been contemplated by the Editor, but the risk and labour are too great for an individual. It should be undertaken by some

But, besides the words and idioms, the peculiar spirit, style, character, and manner of each sacred writer, should form an object of the translator's care, the transfusion of which into our own language, constitutes, in the opinion of our modern translators, the main difficulty and chief merit of their office[22]. Yet these are niceties still more arbitrary and uncertain, than either words or idioms, varying more amongst individual authors, than any mere difference of phrase or idiom; and to transfuse them in translation, is an effort of imitation, which seems somewhat

public body. He would willingly communicate his references, amounting to several thousand, arranged under chapter and verse.—*Editor.*

[22] "It is incumbent on every translator to study the manner of his author; to mark the peculiarities of his style; to imitate his features, his air, his gesture, and, as far as a different language will permit, even his voice; in order to give a just and expressive resemblance of the original."—Lowth. Prelim. Diss. to Isaiah xxxv.

"The second thing a translator has to do, is, to convey into his version as much as possible, in consistency, with the genius of the language which he writes, the author's spirit and manner, and, if I may so express myself, the very character of his style."—Campbell's Diss. x. part 1.

"The fifth quality of a good translation is that diversity of style which characterized the different Scripture writers,

fanciful and capricious, depending rather on the taste and genius, than the sound judgment of the translator. This favourite rule is obviously borrowed from profane translation, without sufficiently attending to the peculiar nature of inspired productions. It is far too vague and licentious, for the severe principle of scriptural translation. The translator should reflect, that by labouring to observe this rule, he is in danger of infringing all the preceding canons; to which, he is far more strictly bound, and thus of eventually counteracting his own design.

To give his production all the beauties and

which, however difficult to attain, ought certainly, by all means, to be aimed at.—Every writer, whether sacred or profane, has something peculiar to himself, and it ought to be the endeavour of a translator, to retain as much as possible of that peculiarity."—Geddes' Prospectus, pp. 137, 138. This learned author then quotes the above words of Bishop Lowth, as authority, which, I hope, he does not embrace, without considering what precedes and follows them.

"To convey into his version, as much of his author's spirit and manner, as the genius of the language which he writes will admit," is the second qualification of a Scripture translator mentioned by Dr. Campbell; and Mr. Wakefield is of opinion, that a considerable share of human ingenuity and invention is requisite, in order to preserve this spirit and manner. See his Preface.

advantages of the original, the translator of a human work, especially if poetical, perceives, that in this imitation, lies his fullest and fairest scope, and that his success will depend chiefly on his own poetic genius. In the execution, therefore, he not only varies many of the words and idioms of the original, but occasionally the figures, and flies to the resources of his imagination, to supply him with others. These, whilst on the whole, they impart the thought, suit the nature and elegance of his own phraseology, and rise to that height of spirit and animation, and that peculiar style and character, which he conceives his author to possess. And if, to exalt and improve these qualities, he should occasionally give a new turn to the thought, the licence has been commended; as by thus enabling the author to shine in the version, with a higher lustre than his own, he compensates for some of those peculiar beauties, in which, every translator must fall short of his original. And, however different it may be, in some particular passages, should the translation produce the general *effect* of the original, the translator has arrived at the summit

of his art, to which, though all hope and imagine they have attained, their success must be in proportion to their genius, and thus their imitations become as diversified as their taste.

Such imitation of the style, character, and manner of the sacred writers, whose language is always analogical, and often more highly figurative than the classic authors, is an effort of human genius, of which, I humbly conceive, the nature of the originals and the severe laws of translation which they dictate, cannot in any great degree, permit. This would be to mix too much of what is vague and human, with what is unchangeable and divine; and is altogether subversive of that literal and idiomatical fidelity, for which we have been so earnestly contending.

The late learned and ingenious prelate, to whom biblical learning is so much indebted, but who brought rather too much classical refinement, to the criticism of sacred poetry, has introduced this imitative translation also from classical authors, to the sacred volume; under the persuasion, that it was perfectly

compatible with a strictly literal version. Here the same questions recur, with respect to translation, which were proposed, in regard to criticising inspired productions.—How far is this imitation to be carried? and who shall draw the line, where it is to stop?—He has ably observed, that in translating the works of the best classic poets, much depends, not only on giving the sense of the author with equal force and elegance, but in catching his characteristic features, his complexion, his personal mien and motion. And he owns, that whoever has thus attempted to translate the sacred poets into Greek or Latin verse, if not quite inferior, must necessarily be quite dissimilar to them[23]. Yet notwithstanding this concession, he has himself attempted to reconcile this personal

[23] In exprimendis alia lingua egregiorum poetarum operibus, multum in eo positum est, ut non tantum iidem sint intimi sensus, par in sensibus explicandis vis et venustas; sed ut, quantum fieri potest, externa etiam oris lineamenta effingantur, ut suus cuique color atque habitus, suus etiam motus et incessus tribuatur. Qui itaque sacros vates Græco vel Latino carmine exprimere, adeoque eorum veluti personam sustinere conati sunt, fieri non potuit, quin toto genere et forma, si non inferiores, multum certe ab iis dissimiles essent.—Præl. iii. p. 43.

and peculiar imitation, with his English version. He declares it to be the design of his translation of Isaiah—"not only to give an exact and faithful representation of the words and the sense of the prophet, by adhering as closely to the letter of the text, and treading as nearly as may be in his footsteps; but also to imitate the air and manner of the author, to express the form and fashion of his composition, and to give the English reader some notion of the peculiar turn and cast of the original[24]." The latter part of this design coincides, he thinks, perfectly with the former; and whatever his success may have been in the execution, his candour deserves to be commended, though it may not accord with consistence. This example, however, rendered the more attractive by the celebrity of his learning, the brilliancy of his genius, the dignity of his station, and the fascinating elegances of his Latin style, others, possessed of less judicious caution, have been too eager to follow, without keeping within the bounds of that imita-

[24] Preliminary Dissertation to Isaiah, p. 1.

tion he has prescribed[25]. They too confidently rely on this false presumption,—that the matter was furnished by the Inspirer, while the form and manner of utterance were left entirely to the natural genius and inclination of the inspired; agreeably to the words of Castalio,—"Res dictat Spiritus, verba quidem et linguam loquenti aut scribenti liberam permittit[26]."

That inspiration consists in the communication of ideas, not of words, which are only the instrument and mode of that communication, is an opinion confidently maintained by many of the learned; with all deference to whom, I would contend, that the Inspirer was interested in the manner, as

[25] His notion of imitation seems to have gone no further than an attempt to represent the prophet's manner, the form of his composition, and his character as a writer, so far as relates to their verse, measure, and rhythm; without affecting the style properly understood,—the idioms, metaphors, images, and expressions of the sacred writers. This imitation is, perhaps, founded in caprice and fancy, rather than in fixed and certain principles; yet he hoped that it was perfectly consistent with the literal sense.—"I must entreat the reader to be satisfied with my endeavour to express the literal sense—this is what I have endeavoured closely and exactly to express."—Ibid. p. 74.

[26] Def. contra Bezam.

well as in the matter, in the words, as well as in the ideas.

In his supernatural intercourse with men, the Almighty has recourse to human instruments. It was shown, in the preceding pages, that he condescended to employ human words to be analogically understood, in order to convey his divine truths to our understandings. But, because the agents are human, no one may presume to take the liberty of giving them any change or different representation, by any effort of human genius. No one may presume to change the words Father, Son, Redeemer, Mediator, which the Inspirer hath adopted. It was also shown, that for special purposes of revelation, he has made use of that parabolical expression, those poetical symbols and figures, which abound in the eastern languages:—and are not these as sacred as those analogical terms[27]?

Upon this ground of reasoning, we may

[27] "Metaphors are in general to be retained, and the substitution or unnecessary introduction of new ones should be avoided. And if the original metaphor cannot be transferred,

justly attribute their different styles, their appropriate spirit and character, to the natural genius, or the particular education of the prophets. Nevertheless, since the Spirit of prophecy employed their language, whatever it might be, with all its images and figures, to his own purposes, it became his instrument, no less than the prophets themselves, and became in that sense, peculiarly his own[28].

And who can affirm, that this divine afflatus had no concern in the immediate act of animating and forming their several styles? or who shall draw the line or determine precisely, how far it was concerned[29]? Whether

it should be rendered in the margin."—Bp. Newcome, rule vi. p. 35.

[28] Utrumque [τὸ περὶ τὰς νοήσεις ἀδρεπήβολον et τὸ σφοδρὸν καὶ ἐνθουσιαστικὸν πάθος] in hoc argumento usurpamus, atque ita sacris vatibus tribuimus, ut nihil derogemus Divini Spiritus afflatui: etsi suam interea vim propriæ cujusquam scriptoris naturæ atque ingenio concedamus.—Lowth. Præl. xvi.

[29] Hanc speciem ἐνθουσιασμῷ appellarem naturalem, nisi viderer plane inter se repugnantia conjungere: est certe longe diversus, et altioris quidem originis, verus ille et germanus ἐνθουσιασμὸς, eoque nomine unice dignus, quo solummodo Hebræorum poesis sublimior, ac maxime prophetica, incitatur.—Ibid. Præl. xvii.

the Almighty addressed the world by Amos, in the style of a shepherd, by Daniel, in that of a courtier, or by David, in that of a king; whether he spoke in figures, in symbols, or by double senses, he would mould their minds,—and why not their words, their styles, and even actions, to his heavenly purpose? And since, under the cover of these styles and symbols, he has generally concealed the main burden of prophetic enunciation from the prophets themselves, this influence may be considered even as more immediate over their language, than over their minds—"Go thy way, Daniel; for the *words* are closed up, sealed to the time of the end[30]."

When the prophetic style conveys a double sense, both literal and figurative, the words are the vehicle of the literal to him who understands the language only; whilst the literal sense becomes the vehicle of the figurative to him, to whom it may be given to "discern the things of the Spirit." But, should the translator, upon the notion of imitating what he imagines to be the style and spirit

[30] Daniel, xii. 9.

of the prophet, in order to transfuse them into his version as his taste and genius may direct, make the least change in the images, or even in the words, the interpreter will in vain seek for the figurative meaning. And however the prophetical sense be couched, whether under metaphors, symbols, or other cover, corresponding ill effects will ensue from such corresponding changes.

"That the difference of style in the writers, who were alike the organs of inspiration, is no objection to their having been inspired," is a position, therefore, to which I readily concede. The Almighty can employ the organs of free agents, as the instruments of his revelation, without making in them any sensible change. The sacred writers might be permitted to use the style most congenial to their taste and education, whilst the Inspirer was bending it, by his secret operation, to his prophetic purposes, nay, even privately suggesting such words and phrases, such figures and images, as were adapted to this end. This secret and supernatural operation upon the mind of man is the peculiar prerogative of the Holy Spirit, both in his

extraordinary and ordinary communications. "The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh or whither it goeth: even so is every one that is born of the Spirit[31]."

If things therefore were the first object of inspiration, words and forms of words were the second; and the favourite position, that, whatever be the subject-matter, the words and manner are equally their own, upon the strength of which critics and translators make as free with Moses, David, and Isaiah, as with Homer, Sophocles, or Virgil, has no foundation, but in a weak and narrow-minded vanity, by which they aspire to entertain the learned, or astonish the ignorant, in the display of their own ingenuity and invention.

How then, it may be inquired, are the spirit, and manner, and characteristic style of the sacred writers, those prominent and distinctive qualities, to be preserved and

[31] John, iii. 8.

represented in an English translation?—We answer, by rendering them, as verbally and idiomatically as possible, without attempting any fanciful imitation[32]. In this opinion, I have the concurrence of one of the most sober and judicious of our translators, who observes, that, "by a literal rendering, not only the matter of the Scriptures, but the peculiar turn of the language, will be faithfully represented[33]." And this, I think, will be thus accomplished with a better and more distinct effect, than by the most successful attempts of the translator, who, in spite of his utmost endeavour to vary with the variety of each author, must retain throughout the whole a characteristic similarity of his own. The English tongue, having been long in the habit of expressing Hebrew ideas in Hebrew phrases, has become by usage as well as nature, adapted for this effect. Without labouring to mimic

[32] As the mind of our author excelled, rather in strength and vigour, than in delicacy and refinement of taste, the student should make all due allowance for the severity of these critical animadversions on the polished antagonist of Warburton.—*Editor.*

[33] Bp. Newcome's Pref. to Twelve Minor Prophets, p. 17.

the Jewish character and expression, it can assume them at once, and, however various they may be, they will not only sit with ease, but shine with elegance. That all poetry is confined to metre, is an opinion as false, as it is contracted. Whether the original be in verse or not, the translation, though in prose, will retain the poetic style and spirit, which is the main object, with enough of the measure, to preserve the native animation of the original. This indeed is acknowledged by the late ingenious prelate[34], who took the lead in imitative translation; who, after labouring, in a preliminary apology, with his utmost ingenuity and address, to ascertain the measure, structure, style, and character of the Hebrew writers,

[34] Duo hic occurrunt adnotanda, quæ ex jam dictis quasi consectaria quædam enascuntur. Primo quidem, Poema ex Hebræa in aliam linguam conversum, et oratione soluta ad verbum expressum, cum sententiarum formæ eædem permaneant, multum adhuc, etiam quod ad numeros attinet, pristinæ dignitatis retinebit, et adumbratam quandam carminis imaginem. Hoc, itaque in vernacula sacrorum poematum interpretatione cernitur, ubi plerumque

"Invenias etiam disjecti membra poetæ:"

quod, in Græcis aut Latinis versibus eodem modo conversis, longe aliter eveniret.—Præl. iii.

in order to imitate them, felt, at last, the difficulties and inconsistencies in which he was entangled, and ingenuously confessed, that the subject was sentimental in its foundation, and precarious in its result[35].

By the rules of propriety, therefore, arising from the principle of scriptural translation, founded on the nature of the Sacred Volume, an English version of the Bible should be as verbal and idiomatical and exactly representative of the original, as the language into which it is made will possibly allow. This rule is strikingly exemplified in the Septuagint version, which is altogether different in its style from any other Greek book.

II. From the rules of propriety, let us proceed, on the same scriptural principle, to consider those of perspicuity,—that other tribunal

[35] "I venture to submit to the judgment of the candid reader the preceding observations upon a subject, which hardly admits of proof or certainty, which is rather a matter of opinion and taste, than of science."—Diss. Prelim. xxxiii.

at which the translators of Scripture are to be examined.

Perspicuity is a quality of the first importance in all human composition, and so essential to its perfection, that whenever an author is obscure, the translator makes no scruple to step out of his province to give him light, even should he be compelled to have recourse to conjecture. The too hasty and licentious use of this licence in criticising and translating classic authors, has however been severely and justly censured. But it has been already observed, that in dictating the Holy Scriptures, obscurity and concealment were often in the original design of the Inspirer: which difference of design will require a very different conduct in the translator. In scriptural translation, therefore, perspicuity should ever give place to propriety; and we should take the utmost care, lest, in the pursuit of the secondary and inferior rule, we lose sight of that which is primary and supreme. As he treads on ground, which is every where sacred, and often involved in mystery, the translator

should religiously confine himself to the literal and grammatical sense of the words. After the text is brought to all the perfection of which it is capable, when that sense is given, should the meaning of the inspired writer remain obscure, or even apparently unintelligible, the severity of the rule, which propriety enjoins, will require, that it be so left,—in a literal and grammatical translation. Even Castalio, though a very free, or rather licentious translator, felt the force and acknowledged the justice of this observation.—"Hunc locum non intelligo, ideoque ad verbum transtuli."

Upon this canon of scriptural translation, the decision of Le Clerc is fully defensible.—"Translatio, ubi archetypus sermo clarus est, clara, ubi obscurus, obscura esse debet[36]: whilst that of Houbigant, who, taking his ideas from profane translation, attempts to turn it to ridicule, is unwarrantable: "Obscurus est non semel Horatius; num igitur laudanda ea erit Horatii Gallica interpretatio, ubi clarus clare, ubi obscurus

[36] Prolegom. in Pent. Diss. ii. § 4.

obscure loquentem reddit?" And, in a style of triumph over Le Clerc, he proceeds,—"Dubitandum non esset, quæ Sacri Scriptores scripserunt perspicue scripsisse." The observation may be just, if understood with this restriction, that what they were given clearly to understand themselves, and intended that their readers should clearly and immediately understand, they delivered clearly; or, that grammatically they were sufficiently clear;—but, when taken at large, and extended to every sort of perspicuity, it is very fallacious; and, from his high reputation as a biblical critic and translator, this authority hath misled, and is in danger of misleading others[37].

[37] "Perspicuity is the second most essential quality of a good translator; nor need we the authority of Horace or Aristotle to establish a proposition, so agreeable to common sense."—Of scriptural translation unfortunately neither Horace nor Aristotle could be judges.—"The Jewish, like all other writers, certainly wrote to be understood."—These Jewish writers were, in this important respect, totally unlike all other writers.—"The poets and prophets themselves are not obscure on account of their style, which, though bold and figurative, must have been perfectly intelligible when they wrote."—How far perfectly intelligible? Was it not by that bold and figurative style, that, in their prophetical, the most important, sense, they were often unintelligible?—"A trans-

A sensible translator has observed, on the contrary, that "the Holy Spirit of God often intends a mystery, and so leaves the letter seemingly obscure: such seeming absurdities are left for the honour of God's Spirit, which clears the difficulty, and sets all right[38]." Time is the only interpreter, which can throw light on the prophetical event to vindicate this honour, by dispelling all such intended obscurity, and which is not incidental to the language. Critics and translators should, as far as possible, distinguish between these different kinds of obscurity; to the

lator, therefore, who, under pretext, that his originals are obscure, affects to give an obscure translation, betrays either his idleness or ignorance, offers an insult to his readers, and throws an oblique ridicule on the author he pretends to interpret. If the Scriptures are at all to be translated, of which we have no doubt, they should be made as plain and perspicuous as possible, and not a single ambiguity should be left in them, that can any ways be removed. That there are certain mysterious words of the originals, that should not be rendered, may be a pious, but is not a rational, notion." —[Dr. Geddes' Prospectus, pp. 128, 129.]—Without making the just distinction between grammatical or idiomatical and prophetical obscurities, does not this very learned and liberal translator sacrifice propriety to perspicuity, the first law of scriptural translation, to the second?

[38] Dr. Gell.—He was not a translator, but published "An Essay towards the Amendment of the English Translation of the Bible." London, 1659, folio.—*Editor.*

neglect of which distinction, I am persuaded, we may attribute the different opinions by which they are divided. The latter it is incumbent on the sacred critic and translator to elucidate as far as possible: with the former he has no kind of concern,—he should leave it, in the same literal expression as he finds it[39]. Even, though mysteries may be disclosed to us, in these distant ages, which, when the Scriptures were written, were hid in the womb of time, the translator, whose office is to give the representation, not the explanation of his original, (in which consists the difference between a

[39] "There are some things that our Saviour said, as well as did, to his disciples, which it was not intended they should understand then; but which they would understand afterwards. 'These things,' said our Lord, 'I have spoken to you in figures; the time cometh, when I shall no longer speak to you in figures, but instruct you plainly concerning the Father.' It was, therefore, not intended that every thing in the Gospel should be announced at first with plainness. It is withal certain, that the veil of figurative language thrown over some things was employed, to shade them only for a time, and, in the end, to conduce to their evidence and greater lustre. "For there was no secret, that was not to be discovered, nor was aught concealed, that was not to be divulged."—Now justice is not done to the wise conduct of the Spirit, unless things be represented, as nearly as possible, in his own manner."—Campbell's Diss. p. 625.

translator and commentator), should not avail himself of this intervening light. He should preserve the cover, under which, the prophetic meaning was originally hidden, though that meaning may now be more clearly understood[40]; and he should keep still more inviolable the veil, under which, future events may yet remain concealed. All that he should attempt or hope, is so to translate the Bible, that it be now as literally understood, as it was when originally written; to make it, if possible, as intelligible to the studious reader of the present age, as the writings of Moses were to the Israelites, and those of the apostles to the ancient Jews[41]. It is the duty of the preacher (and a most essential part of his ministerial function) to make that translation intelligible to the common people.

[40] "Though many of the events foretold which are now accomplished, have put the meaning of such prophecies beyond all question, we ought not, in translating them, to add any light borrowed merely from the accomplishment. By so doing, we may materially injure the history, and render those mistakes incredible, which, on a more exact representation of things, as they must have appeared at the time, were entirely natural."—Campbell's Diss. p. 625.

[41] "It is the duty of a translator to give every thing to his readers, as much as possible, with the same advantages, neither more nor less, with which the sacred author gave it to his contemporaries."—Ibid.

This is that exact and faithful representation, which the dictates of inspiration require, guarded as they are by a solemn prohibition, that not a word shall be added, diminished, or disguised. Though from their greater familiarity with words, idioms, and customs, the contemporaries of a revelation may be supposed to have understood the literal meaning, better than ourselves; we enjoy more of their spiritual import: and, if with such advantages over us, they were suffered to remain under a thicker cloud of darkness, —should we either wonder or repine, that a part of that cloud is still left, or endeavour by a fruitless struggle to remove it? If the translator has reason to suppose, that time has removed the veil from his eye, let him still adhere to his literal duty. As a commentator, he may give the full interpretation in the notes. But where the mystery remains involved in futurity, let him observe the rule of Castalio, an exact, though finical translator, by rendering the words literally, and acknowledging in the margin his ignorance of their real meaning.

In attempting to carry perspicuity, by the

ingenuity of conjecture or by any other means, beyond the limits which propriety prescribes, let the translator of sacred writ awfully reflect, that he, who walks on common earth, is not only stepping out of his own province into the path of an inspired writer, who trod on holy ground, but even mounting over him, by intruding on the prerogatives of the Heavenly Inspirer, who has frequently thought proper to hide his meaning from those, who gave utterance to his words[41]. Nor, because holy scripture is often obscure in the delivery, let him hastily imagine, that it is therefore imperfect, or that it stands in need of his emendation and improvement[42].

[41] When Caiaphas determined, in council, with reference to Jesus, that "it was expedient one man should die for the people, and that the whole nation perish not,"—the evangelist informs us, "that this he spake not of himself, but, being high priest that year, he prophesied that Jesus should die for that nation;"—a prediction which he neither intended, nor understood.

[42] See Lowth's Prelim. Dissert. to Isaiah, p. 64.

"I am fully persuaded that the words, as they stand in the present Hebrew text, are utterly unintelligible. There is no doubt of the meaning of them separately; but put together, they make no sense at all—in this difficulty what can be done, but to have recourse to conjecture? This, it may be said, is imposing your sense upon the prophet; but, how-

III. But, though by means of a figurative and parabolical style in all its forms, the Holy Spirit threw a temporary veil over the whole prophetic dispensation, he prepared

ever, it is better, than to impose upon him, what makes no sense at all."—Lowth on Isaiah, p. 271, 272.

When the text, if wrong, cannot be made right by collation, nothing should, I think, be done, but to translate the words as they stand, *verbatim*.

This reasoning from the principle laid down, may perhaps militate, in some respects, against the fifteenth rule proposed by a very learned prelate, in his preface to his translation of the Twelve Minor Prophets, whose sober and judicious conduct, as a scriptural translator, accords with my opinions on the whole, more than that of any other. " Of dark passages, which exhibit no meaning, as they stand in our present version, an intelligible rendering should be made on the principle of sound criticism." He then quotes this authority of Bishop Lowth,—" that it is better to impose your own sense upon the prophet, than to impose upon him what makes no sense at all." As the authority and example of Houbigant misled this author, we cannot wonder that his own should mislead others.

" I cannot help disapproving," says our northern translator, " the admission of any correction merely on conjecture; for were such a method of correcting to be generally adopted, no bound could be set to the freedom which would be used with sacred writ—this is an extreme, which, should it prevail, would be much more pernicious than the other extreme, of adhering implicitly, with or without reason, to whatever we find in the common edition." [Campbell's Dissertation, p. 646.] What he so well observes of correcting, will apply with equal force to translating, by conjecture.

the way for its removal, at the appointed period, by preserving uniformity of language, as the immediate key, to unlock the sacred oracles, when the prophetic events were fulfilled[43]. In addition, therefore, to the rules of propriety and perspicuity, that of uniformity of language should be sacredly regarded, in all scriptural translation.

Prophecy is a system, and notwithstanding the many different styles of Scripture so much contended for by our modern critics, this uniformity is interwoven through every part of the Sacred Volume, which, though written "at sundry times and in divers manners," retains every where the same, or similar, figures and symbols, and frequently the very same words. Possessed only of the Spirit "by measure," the ancient prophets were unacquainted with the whole of that vast dispensation, of which they were the partial instruments, and which was conducted under the omnipresent Eye of that omniscient Mind,

[43] See Davison's Discourses on Prophecy, perhaps the most original work of modern theology.—*Editor.*

to which "a thousand years are as one day.' The event one foretold partially and darkly, another, at a different period, more fully and clearly signified, in the same style and almost the same words, but with more pointed and particular circumstances. By this consistency, light was reflected from prophecy to prophecy, and the entire system was brought to be illustrative of itself. As the Spirit of prophecy held in contemplation an uniform and consistent series of events, he was no less careful to express these predictions, in a language, which was correspondently uniform and consistent, exactly cast and moulded for the design. This is strikingly apparent through every part of the sacred code; but is no where more conspicuous, than in the uniformity, which is so wonderfully maintained between the Old Testament and the New. As the prophets were bred in the same school, to qualify them for this necessary uniformity of prophetic language; so the evangelical writers were all Jews, bred under the law and the prophets, and qualified to transfer it from one dispensation to another, and thus to make

it pervade the whole Inspired system[44]. The Greek is known to differ from the Hebrew and other oriental tongues, as much in idiom and construction, as in character: yet, though the words of the New Testament are Greek, the idiom and phraseology are invariably Hebrew. The whole is, indeed, little else than Hebrew ideas and phrases clothed in Greek. To prepare them for this singular union of adapting the Greek tongue to the Hebrew idiom, and to familiarize it to their use, the Septuagint version of the ancient Scriptures had been providentially made. The Septuagint exhibits Hebrew phraseology in Greek words, and formed the model and staple for the writings of evangelists and apostles. And thus, by this arrangement of Providence, the figurative and symbolical predictions, delivered under the law, are adapted to their correspondencies in the gospel; in which they were either interpreted, or bequeathed to the future ages of the church.

[44] The reasons assigned by Dr. Campbell, in his Dissertations, p. 12, to account for the apostles introducing Hebraisms and Chaldaisms in their writings are extremely defective, as this uniformity of Scripture is, I apprehend, the chief and fundamental cause.

This uniformity[45], as the key of interpretation, should, therefore, at any rate be

[45] The translator of Ezekiel and the Minor Prophets appears to adopt this rule of uniformity. "The same original and its derivatives according to the leading different senses, and also the same phrase, should be respectively translated by the same correspondent English word or phrase; except where a distinct representation of a general idea, or the nature of the English language, requires a different mode of expression. Not only the sense, but the beauty and force, of many passages depend on a version not deviating from uniformity, without a decisive reason."—Bp. Newcome's Pref. 24, &c..

"A fourth quality of a good translator is as strict an uniformity of style and manner, as is consistent with the foregoing properties."—Dr. Geddes' Prospectus, 136.

I wish the arguments for uniformity, supported by these two great authorities, would weigh with our northern translator of the Gospels, and induce him, either to reconsider the following position, or to be very cautious of indulging in that variety which he seems to cherish: "There are cases wherein some things may be done, nay, ought to be done, by a translator for the sake of variety; for the sacred historians do not always confine themselves to the same words, in expressing the same thoughts. This is owing to a freedom from all solicitude about their language. An unvarying recourse to the same words, for expressing the same thoughts, would, in fact, show one to be solicitous about uniformity, and uncommonly attentive to it."—Campbell's Diss. xii. part 1. p. 594.

The language of the inspired writers is of various kinds; sententious, didactic, parabolical, and narrative; and the uniformity of some may be of more importance than that of others; but to discriminate between them is neither easy, or necessary. Their meaning can be known only from their words, and where these differ, the meaning may not be precisely the same.—This taste for variety is no favourable omen in a sacred translator.

preserved in translation: and on this ground of reasoning, we may subscribe to the joint opinion of Erasmus and Beza:—"Veterem interpretem," says Beza, "Erasmus merito in eo reprehendit, quod unum idemque vocabulum sæpe diversis modis explicat. Atque in eo ipso quoties peccat? Leviculum hoc est, dices. Ego aliter censeo, nisi cum ita necesse est, in his quidem libris, in quibus sæpe videas mirifica quædam arcana, veluti unius vocabuli involucris, tegi."

IV. With regard to the elegances of language and harmony of periods—those qualifications of good translation held in such high esteem by recent translators—they have their chief foundation in the caprice of fashion and in the varying refinements of taste, and are those superficial accomplishments, with which, the translator of a classic author may offer incense to popular fame. He feels himself a kind of rival to his author; is partly interested in his sense, and still more in his language, which, if adorned in the fashionable, yet fading ornaments of the day, may often prove the fairer candidate for

public favour. But the dignity and simplicity of scriptural interpretation, in which the translator has no discretionary power either over the sense or the words, reject all such fanciful and adventitious ornaments. If the grosser inelegances and improprieties of language be avoided,—"ea effigies laudatur," says Le Clerc, "non quæ vultum formosum, sed qualis est revera spectantium oculis offert[46]." The Holy Bible will appear, in a far more characteristic and becoming dress, invested in its native simplicity and grandeur, than if adorned in all the fancy of modern elegance; whether dilated through the artificial and affected sentences of a fashionable historian, or decked in the pompous and unclassical formalities of the Johnsonian period.

The rule of scriptural translation, based on the principle, that—"The Holy Bible, in manner, as well as in matter, is different from all other books, and, therefore, requires a different treatment[47],"—is more or

[46] Prolegom. in Pent. Diss. ii. sect. 4.
[47] Chap. v. p. 126.

less repugnant to the opinions advanced by our modern translators, and the canons which they severally prescribe. In support of the preceding argument—that a translation of the Bible should be, at once, literal, idiomatic and faithful; without aspiring to elucidate any obscurities, which do not attach to the letter, and uniform in its phraseology—I shall now bring one illustration out of many that might be adduced.

In the 21st chapter of St. Matthew, v. 42, and the 20th of St. Luke, v. 18, our Lord represents himself and the kingdom of the gospel, under the symbol of a *stone* [λίθος,] as the ancient prophets had uniformly done before him[48]. To this symbol, he applies the two verbs συνθλασθήσεται and λικμήσει, figurative expressions, which had also been employed by the ancient prophets[49]. Of the former, translators have given a literal version *confringetur*, "he shall be broken;" but the latter, which is a bolder figure, taken from the

[48] See Gen. xlix. 24; Isa. xxviii. 16, viii. 14; Dan. ii. 34; Psa. cxvii. 22; Rom. ix. 32, 33; 1 Pet. ii. 8.

[49] Zech. xii. 3; Isa. xxx. 14, xli. 16; Jer. xxxi. 10; Amos, ix. 9.

rustic employment of winnowing corn, like many other prophetic figures, appearing, in their judgment, when applied to a stone in its literal sense, not only obscure but utterly unintelligible; rather than impose on our Lord in their translation, what they thought no sense at all, they judged it better, by some canon of modern criticism, to introduce a meaning of their own invention[50]. Instead of *ventilabit*, "it will blow him away like chaff;" they have therefore rendered it by *conteret*[51], *comminuet*[52], "will grind him to powder[53];" or, as one more lately, "shall crush him to pieces[54];" in all of which translations, the original figure is totally lost, and substituted by another, and thus the meaning is completely changed[55]. But, after all their labour to give the passage some signification of their own, it has puzzled commentators and critics, more than almost any other in

[50] See Lowth's Notes on Isa. lxiv. 6.

[51] The Vulgate, Erasmus and Castalio. [52] Beza.

[53] English translation. [54] Dr. Campbell.

[55] All the translations I have seen entirely misrepresent the figure, except the Gothic of Benzelius, which renders it by *dissipabit*, and gives *ventilabit*, in the margin.—*Author.*

Beza has *dissipabit*. The Vulgate *conteret* in Matthew, and *comminuet* in Luke.—*Editor.*

the Gospels; insomuch that their explanations are not only vague and conjectural, but absolutely contradictory to each other.

By applying these two figures to the emblem of *the stone*, our Lord was illustrating, confirming, and extending, as he and his apostles often did, two ancient and very important prophecies, in the uniform diction of the ancient prophets. In the verses immediately preceding, he quotes the prophetic words of the 118th Psalm[56], informing the Jews that they were on the point of fulfilment, by the gospel being taken from them, on account of their inveterate obstinacy, and given to others more qualified to receive it.—"Did ye never read in the Scriptures,—'The *stone*, which the builders rejected, the same is become the head of the corner: this is the Lord's doing, and it is marvellous in our eyes?' Therefore I say unto you, The kingdom of God shall be taken from you, and given to a nation bringing forth the fruits thereof[57]." And in the next verse, he repeats the same symbol, to which, he applies the two figures in question, confirming also

[56] Verse 22. [57] Matt. xxi. 42, 43. See Luke, xx. 17.

two further prophecies relating to the Jews. By that of being "broken" [συνθλασθήσεται], he confirms the prediction of Isaiah and Jeremiah, which signified, that, after such rejection from the kingdom of the gospel, the Jews should have their theocratic polity dissolved, and their social community broken.—"Sanctify the Lord your God," saith Isaiah, "and let him be your fear, and let him be your dread; and he shall be for a sanctuary: but for a *stone* of stumbling, and for a rock of offence to both houses of Israel, for a gin and for a snare to the inhabitants of Jerusalem, and many among them shall stumble, and fall, and be broken[58]:" which figurative and symbolical denunciation is more directly expressed by Jeremiah, in the emblematic action of breaking the potter's vessel[59].—Notwithstanding this severe denunciation, there was a reserve in the divine mercy, in favour of this people of God, that, though rejected and broken, "a remnant should be saved[60]," and that, however dispersed throughout the

[58] Isa. viii. 13—15.
[59] Compare Isa. xix. and xxx. 14; Jer. xviii. and xix.
[60] See Isa. xxvii. 12, and Rom. xi.

world, they should, at some remote period, be reunited and restored. The main topics of prophetic enunciation were the four great empires of the world; which, after subverting each other in succession, were finally to give place to this kingdom of *the stone*. By the second figure [λικμήσει], our Lord confirms another illustrious prophecy respecting a different people reserved to a different fate, the last of these empires, the successor and representative of the three former. This prophecy intimated, that this last empire was not only to be broken, as the Jewish polity; but that every trace and vestige of it should vanish from the earth as a spectre, and be blown away as chaff. The department in the prophetic system, which relates to the future fate and fortunes of this new and spiritual kingdom of *the stone*, fell more especially to the lot of Daniel, whose prophetic words, in his declaration of Nebuchadnezzar's dream, exactly correspond to this figure:— "Thou sawest, till that a *stone* was cut out without hands, which smote the image upon his feet of iron and clay, and brake them to pieces. Then was the iron, the clay, the

brass, the silver, and the gold, broken to pieces together, and became like the chaff of the summer threshing floors; and the wind carried them away, that no place was found for them; and *the stone* that smote the image became a great mountain, and filled the whole earth[61]." In the interpretation which directly follows, as translated by the LXX, the prophet explains these last words by λικμήσει, the very word which our Lord employs[62].

Of these three prophecies relating to his gospel, to which Christ gave a confirmation and extension, the two former have been completely and strikingly fulfilled, by the rejection of the Jews, and the dissolution of their polity; whilst no inconsiderable portion of the third has met with its completion, in the successive history of the world. Of the three great prophetic empires, the Babylonish, the Medo-Persian, and the Macedonian, no more trace or vestige hath remained for many ages, than if they had

[61] Dan. ii. 34, 35.

[62] Dan. ii. 44. Ἀναστήσει ὁ θεὸς τῷ οὐρανῷ βασιλείαν—ἥτις λεπτυνεῖ καὶ λικμήσει πάσας τὰς βασιλείας.

never existed. With regard to the fourth, which is the Roman in its full extent, imperial and papal, it has been long on the wane, and seems as a shadow to be vanishing from the globe. "*The stone* that smote the image will become a mountain, and fill the whole earth,"—when "the kingdoms of the world shall become the kingdoms of the Lord and of his Christ[63]." "But the vision is yet for an appointed time,—in the end, it will speak and not lie[64]."

Instead of imposing a new sense on the word λικμήσει, by which the figure was lost, had the translators only rendered it literally and directly, that uniformity would have been preserved, which is the true key of interpretation[65]. Then, instead of having recourse to conjecture and invention to remove the supposed difficulty of the passage (which arises from a false translation), commentators would have been led to its just interpretation in the book of Daniel; and one of the most

[63] Rev. xi. 15. [64] Hab. ii. 3.

[65] Inde hoc saltem collegi potest, uno eodemque vocabulo Græcum scriptorem uti; ideoque locum unum cum altero conferri debere.—Hen. Steph. Præf. in Nov. Test.

important and extensive prophecies of our Lord would not have been lost for so many ages to our understanding[66].

[66] The Scottish translator, as we have seen, is a strong advocate for variety, as a requisite of scriptural translation; by which, he must frequently sacrifice that uniformity of words and phrases, which is here contended for. In searching after this variety, he has given us no promising specimen of his translation in this passage. He is not only guilty of the same fault with his predecessors, by departing from the literal rendering; but in his love of variety, has differed from them all, and is just so much inferior. Not only has he lost the figure in λικμήσει, by rendering it "will crush them to pieces;" but that of συνθλασθήσεται, from translating it "bruised" instead of "broken;" by which the prophetic meaning is totally destroyed. His Dissertations promise better: and I hope his version of this passage is not a true specimen of his work, as it is, in every respect, much inferior to the old translation. The symbol, which had been employed by Moses, David, Isaiah, Zechariah, St. Paul, and Christ himself, to represent the kingdom of the gospel, the old translators have distinguished, with the proper article, *the* stone; by which it is rendered particular and supereminent; but Dr. Campbell has diminished it into *a* stone, making it general and common. In our Lord's prediction of the rejection of the Jews and the call of the Gentiles, the words καὶ ἔστι θαυμαστὴ ἐν ὀφθαλμοῖς ἡμῶν, which the old translation rendered, "and it is marvellous in our eyes;" he has rendered, "and we beheld it with admiration." Now, wonder or surprise, expressed by marvellous, is one idea; whilst admiration, though akin, is quite another, having in it a mixture of love and approbation: in which sense, the Jews, of whom the words are spoken, could not be supposed to view their own rejection.—*Author.*

Dr. Campbell's translation is unquestionably wrong; but this observation is not very apposite. The words in question form part of an exact quotation from the LXX. Ps. cxvii. 23. —*Editor.*

An unprejudiced, literal, faithful, and uniform translation of the whole Bible, the Old and New Testament, therefore, is that elaborate work, which is more to be desired than any other. Besides many other advantages, this would tend more to reconciling parties and opinions in religion, by laying the foundation of one true interpretation of Scripture, and thus bringing them into one fold under one shepherd (a consummation by all Christians devoutly to be wished), than any other human expedient. In the execution of this great work, the books of the Hebrew Scriptures cannot be too minutely studied, too extensively collated, or too accurately compared; whilst the Septuagint, which forms the safe and general guide to this knowledge, should never be neglected. It should always be diligently consulted, and attended to through the whole of the scriptural translation, as constituting the general model of the work. When the Old Testament has been thus consistently and uniformly translated, it will prepare the way for the execution of the sequel. The translation of the New

Testament should be engrafted on the Old, and thus form an integral part of the same whole, through the medium of the Septuagint.

As this is a work to be desired and encouraged by all Christians throughout the world, the learned of all countries should concur in its preparation, whilst in its execution, those of every communion should unite their labours. Too much learning cannot be employed, if seasoned with humility; nor too much sagacity, if tempered with sobriety; nor too much freedom of judgment, if exercised with discretion. In this important undertaking, all party opinion should be sunk in oblivion,—or, instead of one, we shall have as many Bibles, as there are religious sects. Certain rules should be enacted and invariably observed. If men be left at large to translate the Bible, with the same capricious taste and variety of genius, by which they translate other books, we shall have as great a diversity of texts, as translators, and the style will be as various as the genius of individuals. The Bible,—that one consistent body of light and truth,—will be

more varied in its meaning and metamorphosed in its form, than any other volume. This fatal variety will be augmented, in proportion to the number of its writers, the diversities of its language, the mysteries of its meaning, the complexity of its design, and the paramount superiority of its end.

We have thus attempted to delineate, in this chapter, a compendious sketch of the right use of reason in matters of religion, as a general outline of the study of divinity.

Far from superseding the exercise of reason, theology opens the largest, the richest, and the most diversified field for its cultivation, in which, all the powers and provinces of the understanding, the will, and the imagination are employed. But to prevent error, in this vast and various walk of science, which is more easy and more useful than to correct, it may be a general caution to mark distinctly the different offices of reason, as she advances from one stage to another, in rearing the edifice of the Christian faith.

1. The testimony of God revealed to man, —the leading principle of theology,—is contained in a book exhibiting a certain peculiar form of language. In tracing reason upwards, in the ascending scale, to that divine testimony (the reverse of the order pursued in the preceding pages), it would be our first duty to inquire into the history of that book —the authenticity of the Holy Scriptures[67].

2. This book professes to have been written by men divinely gifted and inspired, consequently, infallible in what they wrote.— The second office of reason, therefore, is to inquire into the truth of this inspiration -the authority of the Holy Scriptures.

3. This book is found to contain a series of doctrinal truths, which are distinguished as *mysteries*, and these are asserted to be the immediate dictates of the Spirit of God. To verify this supernatural fact, a series of supernatural tests and evidences are inseparably connected with these mysteries, so that if the former be true, the latter must be true likewise. The third office of reason is, con-

[67] See page 65.

sequently, to examine these tests and evidences—the divinity of the Holy Scriptures.

4. This book was written and early translated in ancient languages, and has its meaning conveyed, and often couched and concealed, in particular styles and forms of writing. The fourth office is, to understand these ancient languages, and to unfold their peculiar styles and idioms,—the interpretation of the Holy Scriptures.

5. And, as this book was given for the use and advantage of all nations, it is the end and object of theological study, so to render it into different languages, that it may be rightly and properly understood by those who speak them.—In this office, consists the translation of the Holy Scriptures.

When these several offices are duly executed, the edifice of theology is complete, Reason resigns herself to Faith, which takes immediate possession of the soul, embracing with implicit and firm assent, the contents of this sacred volume. Its doctrines then become, as the first principles of its truth. They reject all direct attempt to

judge, compare, or account for them by human reasoning. They are not the *posita* of philosophers, but the *pla ita* of God[67].

6. But though Reason may not *directly* intrude into the temple of Faith, which she hath thus erected, it is her sacred duty, as the handmaid of Religion, to attend this queen of science with all obeisance and devotion, to contemplate her excellence, to illustrate her doctrines, to confirm her precepts, to promote her interests, to behold her fair beauty, and to bring her children,—the arts and sciences,—to minister in her courts. And, as the moral precepts of reason are recognised in revelation, as the immediate will and command of God; it is her final and highest office to propose them to the will of men, with every advantage of accuracy and precision, seconded by all the powers of argument and persuasion—the ethics of the Holy Scriptures.

In these various offices of theological reasoning, which is different in the aggregate from every other intellectual process, a sound

[67] See Bacon De Augm. Scient. lib. ix.

understanding and a sincere heart will be found far more useful and propitious guides, than all the modes and figures of syllogistic logic[68].

[68] On the question of a new translation of the Scriptures, there is still, of course, some difference of opinion; but the editor believes, that the public are, on the whole, so well satisfied with our present translation for popular use, and feel so many perils attending any new version, that they are well content to put up with its imperfections, rather than encounter a host of unknown evils. The translations of Lowth will always be admired for their elegance, and those of Doddridge, Campbell, and Macknight are deservedly esteemed; but Geddes has sunk almost to the level of Harwood, and the Unitarian version.

The general observations of Dr. Tatham, on scriptural translation, are eminently just and accurate; but he has, perhaps, carried, to an extreme, his dread of introducing taste and elegance. In the poetical parts of Scripture, such as the Psalms or the book of Job, there is surely some scope for the exercise of genius and imagination in the translator. As an evidence of the force of his complaint of the want of uniformity, in our translation of the Old and New Testament, it may suffice to refer the student to 1 Peter, iv. 18, which is an exact quotation of Proverbs, xi. 31, in the LXX, but which passages in our translations convey not only different, but opposite meanings.—*Editor.*

CHAP. VII.

THEOLOGICAL TRUTH.

THUS the prize of theologic science cannot be won, without much labour in the race, and even when the prize of faith is won, and "we have the witness in ourselves," though the truths of religion in their value, duration, and object transcend all other truth; yet are their evidences more complicate and various, than those of any other science. And thus faith is compelled to stoop from divine, to human testimony; and what is abstractedly the highest truth, seems often to human wisdom comparatively "foolishness." Derived into the human understanding, through such a various and complex train of reasoning, when viewed in its mere logical proportions, it is not only different from all others, but secondary and inferior in force and evidence. Its

objects are not only removed from the apprehension of sense, but are many of them placed beyond the comprehension of intellect. Though its moral evidence be strong and convincing, that evidence is not alone sufficient to support its claims. The scenes, in which its external evidences were displayed to men, on which its historical authority mainly rests, have been removed for many ages. However divine and infallible in itself, the testimony of God is conveyed through the channel of human tradition, and left dependent on the fallible support of human testimony; whilst the substance of this truth, as recorded and conveyed to us, becomes the theme of diverse and difficult interpretation. Thus by a useful monition to our present imperfections and our future hopes, the sublime contemplation of theology should convince the student, that this life does not admit of an entire survey of these heavenly phenomena; that, in this sublunary path, we should walk by faith, not by sight, and that even the eye of faith, by which things are spiritually discerned, can now only view in part, and "through a glass darkly;" that

numberless truths are reposed in the Divine Mind, which remain for future ages to develop, and that, when divested of this mortal body, and removed from scenes material, to climates under a brighter sun, we may advance, by perpetual approaches towards Him, who, though now pavilioned in clouds and darkness, will then " be glorified in his saints, and admired in all that believe."

The assent, by which this singular species of truth, so superior in intrinsic worth, yet so inferior in logical arrangement, is distinguished by the name of *Faith*. Though transcendent in its origin and its end, faith is humbled by the means through which it takes possession of the mind; and is, by that very circumstance, distinguished from every species of conviction or assent, which the mind entertains, in its natural process. It is thus, like its Divine Author and Finisher, " made perfect through suffering."

Why, it may be asked, if this truth be of such universal and immense importance, does its omniscient Author, whose mercies are over all his works, keep it so much

concealed from men? Why are its doctrines so mysterious? Why are its evidences at so great a distance from our view, and so painful and laborious in the acquisition? Why is the written Word so obscure and concealed, couched in parabolical expression, and involved in symbols and emblematic figures? and why is the conviction, resulting from the whole of revelation, so much weaker and logically inferior to that of the other kinds of truth, which are so far less extensive in their use, and less important in their end? Other truths can only lead men, with comfort and advantage, through the present transitory life; this professes to open them a passage and ensure them a portion, in that future and better world which is permanent.—And why, rejoins the mathematician, is it not founded on principles as self-evident, why not as clearly and easily to be deduced, why not crowned with as strong and full conviction, as my demonstrations?—And the same questions may be asked respectively, by the patrons and professors of all other departments of learning. They may jointly demand—Why does this celestial knowledge, which flows immediately from

the centre of light and truth, derive from him such weak and clouded beams, as to shine on the human mind, through a denser and more complex medium, than any of the human arts and sciences[1]?

To these indefinite questions one general answer may suffice,—That truth, considered in its relation to the human mind, is of many and different kinds, each of which has its own proper nature, whereby it is adapted to the particular use and end for which it was designed: that this difference, in whatever it may consist, should not tend to the rejection of any, but that all, of whatever kind, are equally entitled to that reasonable assent of the human mind, for which they were designed, though not operating with equal degrees of evidence: that ethical truth should not be exploded, because it is not physical, nor physical because it is not mathematical: and that the uses and ends, which they are severally calculated to produce, are, by no means, in proportion to their strength and brightness: that, it is consequently incumbent on all reasonable men, instead of

[1] See Butler's Analogy, part ii. chap. 6.

prescribing the conditions, on which, truth is to be received, to embrace it with gratitude, on the terms, on which, it is given; valuing it according to the measure of its utility; and resolving its different phenomena and effects into the wisdom of Him who gave it,—whether that wisdom can be known or not, and without demanding, with daring and impious curiosity,—wherefore its Divine Creator made it what it is.

But, beside this general answer, a special reason may be assigned, from the end which theological truth has professedly in view. From this end, we may deduce an obvious argument, why this Divine species of truth is thus peculiarly constituted.

Assent to divine testimony is the first principle of theologic truth, and this assent is distinguished by the name of Faith. But future happiness, in the more immediate fruition of the Deity, exalted by his presence and crowned by his love, is the end of that faith, for the sake of which, this truth is to be embraced. Frequent and explicit are the declarations of Holy Scripture, that the " pure in heart shall

see God[2];" and that "without holiness no man shall see the Lord[3]." It is therefore necessary that this purity of heart, which is so indispensable to the end, should become an ingredient of the means, which are ordained to open the way and to lead men to it. In order, therefore, to give faith this purifying influence over the heart, the truth, which is its object, is withdrawn from the fuller and more immediate view of the understanding.

By this divine arrangement, an intermediate discipline is instituted, in which all the best affections of the heart are involuntarily developed, and all the moral virtues exercised, in the act of embracing, honouring, and obeying the truth. Thus faith obtains the sceptre of moral discipline, by which she trains her disciple to the capacity of enjoying that heaven to which she aspires. She enables him gradually to overcome the present world, and it is this victory which constitutes her triumph[4]. Hence the energy of Christian truth, since the essence of faith consists in bringing the hopes of the future world to

[2] Mal. v. 8. [3] Heb. xii. 14. [4] 1 John, v. 4.

predominate over the things of time and sense.

In this short probationary stage of being, men are only in the infancy of their existence; and, to train them to that maturity of moral virtue, in which their manhood is to consist, they are appointed to "walk by faith, and not by sight." Throughout the whole of the religious dispensation, therefore, he is "a God that hideth himself;" and the search after God in the kingdom of Grace, is adapted by his wisdom to call into action every generous disposition and virtuous inclination of the heart, which is devoted to piety. The effort of bringing the first offering to the shrine of faith may be painful and difficult; for the evil affections, which stand in the way, are first to be removed. By prayer and exercise and habit, however, it becomes not only easy but delightful; till the pleasure which results, independent of the reward, will amply repay the labour. "Godliness is profitable unto all things."

In the appointment, therefore, of this preparatory discipline, so requisite to the end, we find an adequate solution of all the objec-

tions which can be raised to the difficulty and obscurity of theological truth. He, whose superabundant love undertook all that was requisite to be done in the reconciliation between God and man; who had the supreme prerogative of "knowing what is in man," and who treated him, according to his nature, perceived the necessity of this discipline, and has adapted it to the conditions of the gospel. This purpose, we may infer, therefore, could not have been effected, had the truths of theology been different, or unfolded in any other way, or had the faith by which they are embraced, formed a different species of assent.

Were the evidences and objects of our faith on a level with those of sense, this moral discipline, so essential to the end in view, would have been destroyed, and many other ill effects would have ensued to mankind. Were they as full, and obvious, and easy to be evinced, as those of several other kinds of truth, the evidences of religion would force the conviction of the understanding, independently of the will, without eliciting

the exercise of those moral virtues, by which man is qualified for the practical duties of religion on earth, and becomes fitted for its future reward. Such evidence, by being too powerful, would leave a restraint on the voluntary faculties, and defeat the main end of religion, which consists in trial and moral discipline[5]. Resting on proof inviting no spontaneous desire or emotion of the mind, and requiring no application of industry or labour of discussion, by assenting to such truths, as are obvious of themselves or easy of admission, faith would not then be what it was designed. It would then be an easy and superficial accomplishment, in the exercise of which, though the understanding might be improved, the heart would have small concern;—it might be an intellectual, it could not be a moral virtue. It would call for no exercise of candour, humility, or patient inquiry; no earnest desire to learn and obey the will of God; no aspirations for the Divine presence; no humble, yet "earnest expectation of the creature, to be delivered from the burden of the flesh, into the glorious

[5] See Butler's Analogy, part i. chap. 4, 5.

liberty of the children of God." It could not be the condition of a religion, whose criterion is holiness, and which is commensurate to the wants and requirements of all mankind.

But, from the constitution of theologic truth, faith becomes a moral, rather than an intellectual virtue; the voluntary offering of the heart, not the necessary result of the understanding. The evidences of religion are not so overpowering as to compel an unconditional assent. They are only made sufficient for the rational conviction of every candid and well-disposed inquirer, and for the religious conduct of every humble and willing mind. They are such, as are calculated to induce habits of seriousness and reflection, of virtuous diligence and anxious desire to find the truth, and to subjugate our passions and prejudices, to the probable evidence of moral conviction. And thus it is, that faith, being a moral virtue, becomes alike suitable to all, and that its reward is left equally open to their attainment.

To search and know the truth by which they are to be saved, is unquestionably the duty of all men. It is however practically known,

that, according to the economy of this world and the condition of human life, all do not enjoy equal opportunities, nor are all blest with equal abilities. As the end of faith is, however, equally designed for all, it is so arranged, that those who seek the truth with diligence and desire, with a humble and willing mind, and with a hope full of immortality, according to the advantages they enjoy, and make it, when found, the rule of their religious conduct, will be entitled to all its benefits. And the objects of faith, which we are commanded to embrace with implicit trust and confidence, on the authority of him "that beareth witness," are in general concealed from the most profound investigation and the most penetrating sagacity; so that, in the household of faith, the learned and the unlearned are eventually placed on the same level, and may jointly exclaim in humble adoration—"Lord, I believe, help thou mine unbelief[6]."

Thus faith is not so much to know, as

[6] "The doctrine of religion, as well moral as mystical, is not to be attained but by inspiration and revelation from God."—Bacon's Advancement of Learning, book ii.

to desire and embrace the truth. To all, whose minds are willing and well-disposed, the evidences of religion, after such a probationary and preparatory discipline, will be found abundantly sufficient, and its objects will be sufficiently clear, to lead to that salvation which is the end of faith. To all others, however superior and excellent their knowledge, they will prove totally insufficient, nay, the aggravations of guilt, and the means of condemnation.

Again, were these evidences as easy and obvious, as the common facts of common life, the truths of religion would be held by the generality in similar contempt, subject to that indignity and scorn attached to whatever is of easy acquisition and ordinary use. To the educated, they would not afford that extensive field for the exercise of reason, in which all the active virtues of the mind and imagination are occupied, and supported by the best affections and exertions of the will. Or, were the objects of faith revealed in all their glory, and the heavenly mansions displayed to view, all the powers of intellect would be lost in ecstatic

wonder. Instead of being engaged in those duties and occupations, necessary to our existence and accommodation below, the faculties of men would be abstracted from all those earthly objects and concerns, with which, they are connected. Instead of employing themselves in those duties, which are adapted to their probationary state, as inhabitants of this earth, and by which they may be prepared to become inhabitants of heaven, they would be led to undervalue and despise them, in the anticipation of that supreme and celestial state, without any capacities for its enjoyment.

Thus, whilst the assent, which accompanies the conviction of every other kind of truth, is solely a virtue of the understanding, constituting the wisdom which is human; faith is the wisdom which is properly divine. It is "first pure, then peaceable," penetrating the heart, and subduing its affections. This purity of heart, which can alone qualify men to see and enjoy their Maker in the intercourse of his love, forms the great object which religion invariably holds in view, and

which it every where promotes. The nature of its evidences, the sublimity of its doctrines, the excellence of its precepts, the perfection of its examples, its regenerating grace—every part of the Christian system has a direct tendency to improve the heart and to perfect moral excellence. The image of God, that celestial character, originally impressed on the human mind,—however injured and defaced, it is the business of religion to repair and restore, by this course of probationary discipline, to more than pristine beauty. And thus our faith corresponds to its real end and character—it is "the substance of things hoped for, and the evidence of things not seen."

Hence also arises the logical inferiority of theological truth, as less regular and symmetrical in its proportions, than the other kinds of evidence, which are cognate and connatural to human faculties. But that, it is in consequence of this scientific inferiority of theological truth, faith becomes the means of moral discipline, is strikingly apparent from the different dispensation of religious know-

ledge to men, in the different circumstances and ages of the world—to the ancient patriarchs, in respect of the remote objects of the faith, by which they were justified—to the apostles and more immediate witnesses of Christ—and to ourselves in these later times.

To men, placed in such different situations, religious truth has appeared with a very different aspect, as viewed from different positions. Yet notwithstanding this difference, the whole religious economy is so wonderfully constructed, that the faith, by which it is embraced, and by which all are to be justified, is in all the self-same virtue, interesting the will whilst engaging the intellect, and addressed to the heart even still more directly than to the understanding[6].

1. Though the evidences of a supernatural interposition were dispensed with a liberal hand through the patriarchal age, the celestial light shone upon them as in a dark and distant place. The objects of their faith could be seen only through an indis-

[6] Butler's Analogy, part ii. chap. 5, 6.

tinct and clouded atmosphere. Save the light which regulated their moral conduct, all their religious instruction was involved in figurative and enigmatical predictions, and rendered inaccessible, in its most important sense, to the apprehension even of those, through whose lips it came. Relying on a promise originally delivered in obscure and general terms, and exhibited in future generations, under such types and figurative representations, as were only "shadows of better things to come[7];" their faith was founded on that trust in God, which resulted from piety and virtue. Under this dark and dubious cloud, the holy men of old were placed, which nothing but the rising of the Sun of Righteousness could effectually dispel after the lapse of many ages. Their faith was indeed "the substance of a future hope," deriving that excellent quality by which it became triumphant, from the obedience and pious resignation, by which it was accompanied[8]. Although, to their dim and imperfect vision, "clouds and darkness

[7] Col. ii. 17. Heb. viii. 5; x. 1. [8] Heb. xi.

were round about him," they still rested in the confident assurance, which their faith and patience had supplied, that " righteousness and judgment were the habitation of his seat."

Prophecy was the principal channel of religious instruction in these early ages. This was delivered in a mysterious and enigmatical form, that it might afford exercise to the mental faculties and moral dispositions of the willing and well-disposed; and that, whilst it was calculated to be the test of truth, it might also be the reward of virtue. Of this sublime intention of the Inspirer, we have a full and unequivocal assurance in the angel's reply to the prophet Daniel, who was kept in ignorance of the very predictions he was commissioned to pronounce.—" And I heard," said the prophet, " but I understood not: then said I, O my Lord, what shall be the end of these things? And he said, Go thy way, Daniel; for the words are closed up and sealed to the time of the end. Many shall be purified and made white, and tried; but the wicked shall do wickedly; none of the

wicked shall understand, but the wise shall understand[9]."

The faith of Abraham stands forward as a prominent example, and will ever remain a splendid monument of his piety. Dark in its evidence and distant in its object, it was sanctified by his ready and unreserved obedience to the will of God; and hence it was "accounted to him for righteousness." By virtue of such a faith, he was denominated "The Righteous," and constituted "The Father of the Faithful," the sire of the people of God in all ages, who believe and obey after his example, who, in participation of his eternal reward, will be "blest with faithful Abraham[10]." As an immediate recompense for that singular and magnanimous instance of faith, in stretching his son on the altar, the Almighty indulged the aged patriarch, in this devoted act, with an indirect and distant view of that future day, when the entire mystery of his faith should be un-

[9] Dan. xii. 8, 9, 10.
See this argument powerfully and beautifully expanded by Davison, in his Discourses on Prophecy.—*Editor.*

[10] Gal. iii.

folded in the personal sacrifice of his Son upon the cross[11]. On the part of Abraham, as this was the most signal example of obedience; so, on the part of God, this was a signal example of the language of prophetic action. This emblematic vision was interpreted by Christ himself, in that emphatic declaration, by which the Jews were so much offended, and by which commentators have been so much confounded—"Your father Abraham rejoiced to see my day,—he saw it, and was glad[12]."

Had the information and conviction of the understanding been the sole, or indeed the main object, in the intention of the Inspirer in these early ages; instead of delivering this religious instruction in such a dark and mysterious form, he could have adopted some mode of supernatural communication more immediate and direct. But He, who had resolved by his immutable attributes, that, "without holiness no man should see him," had another and greater end in view. Religious instruction was communicated in

[11] Gen. xxii. [12] John, viii. 56.

such a mode and with such qualifications, as to excite the desires, exercise the industry, and improve the virtue of these venerable men. And thus the first and best offering which they made to Heaven, was the voluntary offering of the heart.

Such was the sanctifying nature of that faith, by which "the elders obtained a good report," anticipating its object amidst dark and distant prospects, full of pious affection, earnest desire, and holy trust. After enumerating an illustrious phalanx of saints and martyrs, who were justified by such faith, the apostle has assigned the reason why they were withheld from the enjoyment of the promise. It is most encouraging to the efforts, desires, and hopes of the partakers of the same faith, in all ages since it was fulfilled.—"God having provided some better thing for us; that they, without us, should not be made perfect[13]:"—that the whole family and household of the faithful, in every age, as the spiritual children of Abraham, should be justified together.

[13] Heb. xi. 40.

2. The circumstances and situation of events at the coming of Christ, and his own conduct and that of his apostles in preaching the gospel, will afford us still more ample illustrations of the true nature of theologic faith.

His divine commission was opened by an illustrious herald, specially sent to prepare the way for his reception, by preaching "the baptism of repentance," or the internal purgation of the heart, as the prelude to that external baptism, which is its emblem, and which, therefore, he ordained to be the initiatory sacrament of his religion.

On assuming the prophetic character, he first addressed himself to those learned Jews, who, from their superiority of station and the ritual offices which they held, should have been prepared to receive him, as the Messiah, whether by hearts purified according to the observance of their law, or by the application of prophecies fulfilled in him, to which it was their duty to attend. Devoid, however, of the former qualification, they became totally blind to the second. In them was the

prophecy fulfilled—"None of the wicked shall understand[14]." By a perversion of judgment the most obstinate and depraved, they were led to misinterpret the obvious meaning of their prophets: and when he displayed before their eyes the most stupendous miracles, "their hearts being hardened[15] through the deceitfulness of sin," their understandings revolted against this combination of external and internal evidence[16]. Their faith was blasted by an obduracy of mind, the result of many gross and habitual vices, particularly the predominance of pride, and that of the most inveterate species—the pride of knowledge. Devoid of that charity which alone could edify, their knowledge was vain and unprincipled. The vices of the heart perverted the light of the understanding. "Therefore," saith the beloved apostle, "they could not believe."—This total perversion of the faculties of the human mind, in rejecting his gospel, was an event so singular and important, as to become the subject of a signal prophecy. It was thus transformed into

[14] Dan. xii. 10. [15] John, xii. 40. [16] John, xii. 37, 38.

an evidence of the very truth which it had rejected:—"That the saying of Esaias might be fulfilled,—He hath blinded their eyes and hardened their heart, that they should not see with their eyes, nor understand with their heart, and be converted, and I should heal them[17]."

Habitual sincerity of heart was the first object of our Lord's search, and the sole subject of his improvement. To prove whether their faith could endure a foundation based on humility, he delivered his doctrines to the Scribes and Pharisees, under the veil of parables[18], that he might rouse their voluntary faculties, and appeal to their moral convictions. Had he delivered them in open terms, their overwhelming energy, supported by the miracles with which they were accompanied, would have subdued their resistance, and they would have been converted and healed by a compulsive power, in opposition to their will,—a contradiction to the whole intent of his religion. But by couching

[17] John, xii. 40. See Rom. x. 21.
[18] Matt. xiii. and Mark iv.

them under parables, he held them in reserve, that they might be still amenable to their own unrighteous prejudices,—" that seeing they might see, and not perceive, and hearing they might hear, and not understand[19]."

From these unpromising candidates of a holy faith, he turned his attention to others of an opposite description, with this severe and pointed sentence,—" For judgment, am I come into the world, that they who see not, might see; and they who see, might be made blind[20]." Such were those humble fishermen, who were possessed of sincerity, but who had no pretension to great intellectual attainments. In these, he fulfilled another prophecy, by " being found of them who sought him not, and being made manifest to them, who asked not after him[21]." Their minds, though uninformed, were candid; though ignorant, unprejudiced; though weak, were well-disposed. Possessed, in a sufficient degree, of the first and more essential qualification,—docility and simplicity of heart,—they became the proper subjects of a king-

[19] Mark, iv. 12. [20] John, ix. 39. [21] Rom. x. 20.

dom, to be founded and administered in righteousness: whilst, under the care and discipline of such a master, they would speedily acquire the second,—their understandings enlarged and their faculties strengthened. From his miracles, they acknowledged, with ingenuous candour, his divine authority. By showing themselves ready to obey, and willing to be instructed, they evinced the necessary qualifications to become his disciples.—"He that hath my commandments and keepeth them, I will love him, and will manifest myself to him[22]." If any man will do his will, he shall know of the doctrine, whether it be of God[23]."

But however open their hearts and willing to obey, their minds were infirm and tender: he therefore instructed them with the utmost caution, lest, by alarming their fears, he should subvert or check those principles, which were to be of voluntary growth, insensibly improving their hearts and invigorating their understandings. He did not unfold to them, at once, the mysteries

[22] John, xiv. 21. [23] John, vii. 17.

of his kingdom, unable, as they were, to understand such deep, or to endure such solemn truths. He taught them in parables to excite in them a voluntary curiosity and desire to be informed, and at the same time, to conceal from them, till they were strengthened and prepared for its reception, the awful events of his religion. When they had sufficiently employed their best intellectual faculties in the endeavour to discover their import, he explained to them in private, what he had before delivered in public, to the Scribes and Pharisees, as "they were able to bear it[24]." On their inquiring why he taught under this parabolical disguise, and not openly, to encourage them to advance from grace to grace, he honoured them, mean as they were in their own esteem, above their haughty teachers. "To *you*, it is given to know the mysteries of the kingdom of heaven; but to *them* in parables[25]." He thus stigmatized the obstinacy, punished the vices, and confounded the pride of the Scribes and Pharisees. And to illustrate this important position of the pro-

[24] Mark, iv. 33. [25] Matt. xiii. 13, 14.

gressive discipline and voluntary establishment of his kingdom in the heart, he delivered his two expressive parables—" the Sower[26]", and—" the Talents[27]."

After the disciples were sufficiently disciplined and confirmed, he commissioned them to preach the kingdom of God, with power, and " appointed seventy others to go before his face into every city and place whither he himself should come[28]." When these humble messengers told him, on their return, of their success in preaching the gospel and the progress they had made in faith,—" in that hour Jesus, rejoiced in spirit and said, I thank thee, O Father, Lord of heaven and earth, that thou hast hidden these things from the wise and prudent, and revealed them unto babes : even so, O Father ; for so it seemeth good in thy sight[29]."

Doubtless he could have opened their understandings instantaneously, and have filled them with intuitive knowledge ; but,

[26] Matt. xiii. 3—23, and Luke, viii. 4—15.

[27] Matt. xxv. 14—30, and Luke, xix. 11—27.

[28] Luke, x. 1. [29] Luke, x. 21.

"knowing what is in man, and whereof he is made," he treated them as rational and accountable beings, leaving their minds to their voluntary actions, to search after truth, advance in goodness, and grow in grace. As they improved in faith, he increased their knowledge. The improvement of the intellect, without the heart, was no qualification of a religion which is holy and undefiled. One of their number, failing in this moral improvement, so indispensable to a sound and saving faith, after all the wonders he had seen, and the divine instructions he had received, fell an unhappy victim to perverted privileges. Even the eleven, who continued faithful, were suffered for the same moral probation, to remain in ignorance of the true nature of his spiritual kingdom, till after his resurrection[30]. Seasoned and prepared, however, by a long course of severe and trying discipline, for its full reception, at length he poured on them his Holy Spirit, to open their understandings, and lead them into all revealed truth.

[30] Matt. xx. 21, and Acts, i. 6.

Such was that discipline by which the apostles were trained, through scenes of darkness gradually dispelled, in a virtuous and holy faith, by the hand of Christ himself. This example of their Divine Master they followed in their conduct towards others, observing, on all occasions, the great rule of faith which he had delivered—"Whosoever hath, to him shall be given, and he shall have more abundance; but whosoever hath not, from him shall be taken away even that which he hath[31]."

3. Whether it be the age of the patriarch, of the apostle, or the modern believer;—this faith is essentially uniform and permanent. As there "is one Lord, and one baptism, so there is one faith[32]," which is the same essential virtue in all ages, demanding the same joint qualification of the heart and understanding.

Before the advent of Christ, "faith was

[31] Matt. xiii. 12, and xxv. 29. Luke, xviii. 26.
[32] Eph. iv. 5.

the substance of things hoped for,"—brought into the mind by anticipation: and, since his final departure and the supernatural operation of the Holy Spirit, it is "the evidence of things not seen,"—brought into the mind by retrospection[33]. It is evermore the glory of our religion, that it constitutes a willing, as well as a reasonable service. The situation and circumstances, under which we are placed, in these remote times, with regard to its truth and evidence, still render necessary the same honest endeavour and voluntary exertion. They still arouse every affection of the mind, in the amiable search and pursuit of theologic truth; and still constitute our faith the same comprehensive and exalted virtue.

These sublime and unfathomable mysteries are the truths of our religion, to be firmly embraced on the sole authority of the testimony of God, though the evidences of that testimony to us are distant and indirect. The road to these evidences is long and laborious, and numerous difficulties

[33] Heb. ii. 1.

and obstructions intervene, to give exertion to the moral, as well as to the intellectual powers, that the student may improve in grace, as he improves in knowledge. In this elaborate inquiry, his industry is excited, his desires kindled, his love inflamed. Whether we view him, travelling through the annals of civil and ecclesiastical history, to prove the authenticity of the sacred code; or regard him as employed, in the painful task, of comparing ancient manuscripts, copies, editions, and translations, for the purpose of establishing an uncorrupt text; whether he is engaged in collecting the evidences of Christianity, to deduce the immortal argument from the whole, or in interpreting and translating different parts of the Holy Scriptures; we may behold him traversing these regions of various learning, with the heart throbbing with desire, and the hope full of immortality. However deep his erudition, or indefatigable his industry, his attention and perseverance will prove unequal to the task, unless animated by the cause which leads him onwards. Thus disciplined in faith, whilst advancing

in knowledge, and encouraged by the example of those devoted men, who, in every age, have trod the same learned and laborious walk, and are gone before him to receive the reward of their labours,—the very same hopes, by which, they were animated will enable him to persevere: and, whilst looking up to them with gratitude and veneration for their useful labours, he will attribute their success, not less to their sincerity and simplicity of heart, than to the strength and vigour of their understandings.

But, it forms the chief glory of our faith, that, if turning our eye from the theological student to the humble believer, who, employed in any of the honest occupations of social life, reads his Bible, or hears it read;—who "thinks of the Lord, with a good heart, and, in simplicity of heart, seeks him;—He will be found of them that tempt him not, and sheweth himself to such, as do not distrust him[34]." It is the peculiar glory of our faith, that it is adapted to all, accommodated to the use, and intended for the benefit of

[34] Wisd. i. 1, 2.

every class and description; that he, who breathes, with an ardent desire, after the prize of his Christian calling, however ignorant and unlettered, if his heart be sincere, and he earnestly prays for Divine assistance, will be accepted "according to what he hath, and not according to what he hath not[35]."—"There is no respect of persons."

Since the inhabitants of all ages and nations could not enjoy the immediate evidence of eye-witnesses, let it then be our privilege, to rest our faith with firmness, on the testimony of the first believers, in the consoling hope, that the greater diligence, assiduity, and confidence, we exert in the exercise of faith, the more abundant will be our reward.—"Thomas, because thou hast seen me, thou hast believed: blessed are they that have not seen, and yet have believed[36]."—When those unhappy multitudes, who, beholding the miracles of Jesus, rejected his doctrines, and ascribed his works to Beelzebub, shall look back in vain on the age of the Messias—should

[35] 2 Cor. viii. 12. [36] John, xx. 29.

we, in these remote ages, repose our faith, with confidence, on the testimony of our predecessors, this difference will doubtless hereafter redound to their misfortune, and to our advantage.—"We are kept by the power of God, through faith, unto salvation, ready to be revealed in the last time. Wherein we greatly rejoice,—that the trial of our faith, being much more precious than of gold which perisheth, though it be tried with fire, may be found unto praise, honour, and glory, at the appearing of Jesus Christ; whom, having not seen, we love; in whom, though now we see him not, yet believing, we rejoice with joy unspeakable, and full of glory; receiving the end of our faith,—the salvation of our souls[37]."

Thus in every age of the world, the Christian religion is a school of moral discipline, in which, "Wisdom is justified of all her children[38]." "None of the wicked shall understand; but the wise shall understand[39]."—Had its truths and evidences been brought to

[37] 1 Pet. i. 5—9.

[38] See Butler's Analogy, part i. chap. 5, and part ii. chap. 6.

[39] Dan. xii. 10.

shine on the understanding, with that full glow of light and demonstrative conviction, which some have ignorantly required; they might have forced from the wicked his hard and impenitent heart, and rendered it possible to be a Christian, against the freedom of the will,—a subversion both of the end of religion and the nature of man. He who "knows whereof we are made," hath dealt with his moral agents, in a way more suitable to our condition, and to the honour of his own government; affording us such a degree of light, as, whilst it gives exercise to liberty and candour, is fully competent to convince the willing and well-disposed; but which does not shine, with such absolute and irresistible force, as to illumine those, who "love darkness rather than light, because their deeds are evil[40]."

Thus from the nature of theological truth, it becomes the privilege of faith to be the greatest of virtues, comprehending all moral and intellectual good, and forming that ex-

[40] John, iii. 19.

alted union, in which, all the virtues of the heart and understanding combine. It is that inviolable bond, in which, truth and charity meet together in that wisdom[41] which alone is from above;—"which is first pure,"—subduing the affections; and "then perfect,"—excelling all other knowledge. This is the faith which, in every age, is the test of true religion. However varied in degree by circumstance or situation, it is the same essential quality in all—the voluntary offspring of the heart, rather than the necessary result of the intellect.

Thus pure in her origin, progressive in her increase, and perfect in her end, let it reflect no dishonour on this Wisdom, that "she can be justified only of her children," nor cast discredit on that faith, by which she is entertained, that the names of some men of brilliant parts and superior endowments are not enrolled under her banners. It is not, that they reject and dishonour her; it is rather, she who rejects and dishonours them. Either the

[41] See vol. i. sect. 1, p. 3.

cold and evil spirit of unbelief hath chilled the heart, or their moral digestion is so vitiated and depraved, that it turns the most wholesome food into deadly poison. In them is fulfilled the denunciation of our Lord—"If thine eye be evil, thy whole body shall be full of darkness. If the light which is in thee be darkness, how great is that darkness[a]!" Whilst we admire their talents and emulate their learning, we look up with pity to these splendid monuments of human folly, as our Lord surveyed with tears the temple of Jerusalem—that superb edifice erected for the service of the living God, and once worthy of his abode,—then desecrated and profaned, and devoted to destruction.

Whether Deist, or Freethinker, Minute philosopher, or unbeliever of whatsoever name, however inveterate be the prejudice, or abandoned the habits, under which, you labour, we can trust you with that searching question, either in respect to Christ or his religion, which Jesus addressed to his cotemporaries,—"Which of you convinceth me of sin?"—

[a] Matt. vi. 23.

Which of you can impeach the morality of the gospel? One advantage you must confess that we enjoy over you, in the great utility of its precepts and examples, which contribute so much to the happiness and security of social life. To this advantage, resulting from the "charity" of the gospel, which we know "will never fail," we can add another of equal, or superior moment to our present happiness, derived from our "hope in believing," which throws a beam of perpetual comfort over the mind. This would cheer and enliven every scene of life, even were our faith a dream, from which, when passed into the sleep of death, we were never to awake. This virtuous, this happy dream, would soften all our cares, alleviate all our pains, animate all our joys, whilst journeying through this vale of tears and sorrows. Permit us, then, to look up to the divine founder of that faith, with affections of gratitude and love; or if you will not acknowledge this founder, suffer us to offer thanks to the God of nature and providence for so great a blessing.—But some of you deny the being of God, and others his providence, convinced the admis-

sion of these will too powerfully imply the rest. Should you deny us these solid foundations of trust and comfort, permit us, at least, to congratulate our good fortune on the many and signal advantages, which we enjoy over you, by embracing the gospel, even in this deplorable world of change.—But consider, seriously consider, if what you so much deride, should eventually prove no dream—how superabundant will be our joy and consolation, how dreadful your regret and condemnation!

But "thanks be to God who hath given us" not only the advantage, but "the victory," over you and the world—even the victory of our "faith," "through our Lord Jesus Christ." This is, indeed, no dream—it is a virtuous, pious, and reasonable conviction, built on substantial grounds, and to be crowned with sure enjoyment. The truths which it embraces are so divinely authorized; the evidences by which they are attested so strongly authenticated; they are accompanied by so many concurrent circumstances and credible qualifications—the personal knowledge, the honesty, the number, the

consistency, of the witnesses—men who had neither interest nor ability to forge such an extraordinary and unique plot, in the very scene, and almost at the time of action, when all had the immediate power to disprove it;—they are transmitted through so many different and opposite channels, and attested by so many collateral authorities, as to raise in every rational and candid mind a conviction, though not so overwhelming, yet quite as satisfactory, as the strongest evidence. And thus, "if the gospel be hid, it is hid to them that are lost; in whom the God of this world hath blinded the minds of them that believe not, lest the light of the glorious gospel of Christ, who is the image of God, should shine unto them[44]."

The prejudice of habit, the pride of science, or the impertinence of curiosity, may render some men dissatisfied, unless they can climb the confines of demonstration, for the proof of every kind of truth. We esteem it, on the contrary, not only the privilege, but the honour of every fair and rational in-

[44] 2 Cor. iv. 3, 4.

quirer, willingly to embrace and thankfully to acquiesce in such evidence and grounds of assent, as are sufficient; more particularly, in such, as are naturally adapted to the kind of truth in question, and accommodated to the nature of the subject[45]. Better and fairer evidence of truth can in no case be required; and with such, the Christian religion is abundantly supplied. God hath revealed himself, as he thought best for his own glory and our good; and, if ye cannot believe him, because he has not given you exactly that degree of light, which your own fancy may suggest, but of which things do not admit—"he will not be mocked," ye must take the consequences on yourselves. The only assistance which we can give you, is to pray, that "He who commanded the light to shine out of darkness, may shine in your hearts, to give you the light of the knowledge of the glory of God, in the face of Jesus Christ[46]."

"The kingdom of God is within you[47]," implying that it had its origin in the heart,—

[45] Hurd's Serm. vol. vi. [46] 2 Cor. iv. 6. [47] Luke, xvii. 21.

was the answer of our Lord to the Jews' inquiry, when his kingdom should appear. To represent this fundamental truth more sensibly to his disciples, "Jesus took a child and set him in the midst, and said, Unless ye be converted, and become as little children, ye shall not enter into the kingdom of heaven." And, still further to illustrate it, he employs the parables of the Seed[48], and the Grain of mustard[49]. By the former, he intimates, that at first it is small, and that its increase will depend upon the goodness of the soil, which is to be prepared and cleansed from the tares of vice; and that, in such a soil, it will make gradual advances from one stage to another, producing, "first, the blade, next the stem, then the ear, and, lastly, the full corn in the ear[50]." By the latter, he signifies, that, however small at first, it will finally become the great and reigning principle of the human mind. Thus "the path of the just," in the courts and offices of religion, "is as a shining light; which," by perpetual increase of faith, and

[48] Matt. xiii. 3, &c. [49] Matt. xiii. 31. [50] Mark, iv. 28.

constant supply of grace, "shineth more and more unto the perfect day[51]."

For the admission, as well as enjoyment of the truths of a religion, which is thus pure and undefiled, the requisite qualification is the purity and renovation of heart, expressed in Scripture, by the figure of being "born again" or "from above." Accordingly, the great apostle of the Gentiles admonishes the Ephesians, "to put on the new man, which, after God, is created in righteousness and true holiness[52];" and he exhorts the Roman converts, "not to be conformed to this world, but to be transformed in the renewing of their mind, that they may be able to prove what is the good, and acceptable, and perfect work of God[53]."

In consecrating his labour at the temple of religion, whilst he cultivates its truth with his understanding, let the student of theology nourish charity in his heart, as the first and most essential ingredient of a sound and saving faith; frequently meditating on the solemn admonition of the last great prophet—"He

[51] Prov. iv. 18. [52] Eph. iv. 24. [53] Rom. xii. 2.

that is unjust, let him be unjust still: he that is filthy, let him be filthy still: he that is righteous, let him be righteous still: he that is holy, let him be holy still[54]."

From this logical view of the province of theology, in its principle, its reasoning, and its truth, the student in divinity will entertain a profound sense of the dignity, as well as difficulty of that science, which leaves behind all terrestrial things, and opens our prospect to future and unearthly scenes. With that humility, which becomes his present state, he will feel himself to be only in the cradle of his existence, and that his knowledge is proportioned to the immaturity of his age. In respect of the manhood of his being, he now only thinks and understands as a child; and in this school of terrestrial discipline, in which, he is training for immortality, "he walks by faith and not by sight." He will acknowledge, that this life does not admit of any adequate view of things celestial, and that even the eye of faith, by which

[54] Rev. xxii. 11.

they are spiritually discerned, can only "see them imperfectly and in part, and as through a glass darkly." He will be convinced, there are innumerable and ineffable truths reposed in the divine intellect, beyond the present comprehension of our faculties: whence will spring a lively hope, that in the future stages of his existence, he may be admitted to their knowledge and enjoyment. Divested of this mortal body, and removed from this material system, he will be transplanted into a purer clime, under the influence of a brighter sun, and advance by perpetual approaches towards Him, who, though now enshrined in clouds and darkness, will then reveal himself, as "THE GOD OF TRUTH[55]," "to be admired of all that believe"—"when he shall behold his presence in righteousness, and awaking up after his likeness, shall be satisfied with it[56]."

[55] Ὁ ΘΕΟΣ ΤΗΣ ΑΛΗΘΕΙΑΣ.—Ps. xxxi. 5. Ὁ ἀληθινὸς.—Rev. iii. 7; vi. 10. Τάδε λέγει ὁ Ἀμὴν, ὁ μάρτυς ὁ πιστὸς καὶ ἀληθινὸς.—Rev. iii. 14. Ἡ ἀλήθεια τοῦ Κυρίου μένει εἰς τὸν αἰῶνα.—Ps. cxvi. 2. Deus, Veritas.—Jer. x. 10. *Montanus*, literally from the Hebrew. Conf. Isaiah, lxv. 16. John, xiv. 6.—*Editor.*

[56] Ps. xvii. 15.

CHAP. VIII.

GENERAL RECAPITULATION, AND SKETCH OF THE FUTURE PLAN.

METHINKS, I am in the situation of one, who has been travelling over a level, but fertile country. When he first set out, the place of his destination appeared at no great distance; and the objects to be noticed in the way seemed neither so many nor so important, but that he could view them, with sufficient attention for the purpose of his journey, and arrive at the end, in a given time. As he advanced, he found the prospect opening on every side, the objects increasing in number and swelling in magnitude, as the eye surveyed them; insomuch that, though he made no excursion from the road, he found himself employed and detained on his journey much longer than he expected.—Thus the plan, which I hoped to execute, in some

measure, in the course of ten or twelve lectures, is not half completed: and though I have endeavoured to treat the important topics of various disquisition, as they occurred, with all the conciseness in my power, we are arrived only at the point, from which I had intended to take my general survey.

This may perhaps prove an alarm to the future patience of my hearers; it is, I am sure, a present disappointment to myself. But, before we start afresh (should I find opportunity or encouragement to proceed, by overcoming that indolence, which is a vice I feel deeply rooted in my constitution), it may be proper to take a general view of the ground over which we have passed, by way of adjusting our present accounts, and also to give my reader a short sketch of the country, through which, at some future period, we may travel together: unless some individual, better qualified, should undertake the task;—"et gaudebo certe, si alii, quod nos inchoavimus, melioribus ipsi auspiciis et necessariis ad tantum opus præsidiis instructiores perfecerint[1]."

[1] Casaubon, p. 406.

The delineation of Wisdom, with which we commenced these philosophical researches, portrayed that universal virtue of the heart and understanding, which comprehends all moral and intellectual good; and which we accordingly divided into two collateral branches, truth and charity—the basis and summit of all things. Truth is of the nature and essence of God, incapable of a verbal definition, but to be illustrated by the similitude of light. From the divine mind, it becomes, by communication, an attribute of the human, and is proportioned to the mind in which it exists. In the divine, it is universal, intuitive, permanent, and infallible. In the human, it is partial, progressive, various, and hidden, to be sought by virtuous and assiduous investigation. In both, it is immutable[2].

In the investigation of truth, the philosophy of mind, of which it is an attribute, is the first in natural order, though the last in the course of human study, and therefore called *metaphysics*. This is a science which, in its just

[2] Introduction, sect. i.

and proper cultivation, is of great importance, as it lays the philosophical foundation and distinction of all other sciences; distributing the human mind into three general provinces, the theoretic, the practic, and the poetic, in reference to the intellect, the will, and the imagination; and classing universal truth under these different provinces, as it separates into special relations, according to the operation of these different faculties on their respective internal or external objects[3].

All truth, to whatever province it pertains, is deduced from principles, as they exist in the nature and constitution of things, which are of two general kinds, primary and secondary. The primary are the evidence of external sense, the evidence of internal sense, and the evidence of memory, &c. The secondary are axioms, or universal propositions, derived from the former by a process of reason. These two species of principles divide all direct reasoning into two kinds or methods[4].

Truths are deduced from principles, by an

[3] Sect. ii. [4] Sect. iii.

act of reason, their common instrument, consisting of perception and judgment, acting by comparison. It is the office of reason to judge of evidence, to form and apply axioms, and to trace analogies. According to the principles on which it operates, reasoning is divided into different methods. The first is the inductive, which commences with particulars, derived from the primary principles. It compares many of them together by simple acts, and by such comparisons, extracts general laws, respecting the powers, properties, and relations of things; abstracting, by an experimental process, general ideas, or formal causes. By affirming or denying a genus of a species, or an accident of a substance, through all the stages of the ascending process, it forms general conclusions; which, if logically conducted, are axioms, ranged one above another, till they terminate in universals. When axioms, or secondary principles, are thus formed, the method is the reverse, and becomes syllogistic, which applies these general axioms to the proof of less general or particular truths; predicating a genus of a species or individual,

in a descending scale; and proceeding in double or complex comparisons, by the help of a third, or middle term. To these two, which are direct, is added the analogic, which is indirect and subservient to them. Analogy compares things already known by whatever way, with those which are not known, and, from their similitude, infers the truth of the latter. This is a method of vast utility and extent, and supplemental to both the former. These three methods are essentially different, and constitute severally the whole business of logic, as an instrumental art, or rather, as the particular method of each[5].

Universal truth assumes a special form, according to the specific nature of its different means, which constitute those various substances and subjects of mind and body, from which its particular principles are supplied. According to these particular principles, and the method of reasoning adapted to them, truth separates into particular kinds, possessed of different degrees of evidence and convic-

[5] Sect. iv.

tion. The general rule, by which reason should conduct her operations in each, is this—to investigate its proper principles, to pursue them in the proper method, and embrace its proper truth with a just and due assent[6].

To apply this general rule to the different branches of science, constitutes the first part of my plan; which, by exhibiting a parallel of their principles, their reasoning, and their truths, forms a general chart of their distinct and separate provinces, and subdivisions; whilst, by placing them in juxtaposition and by their comparative survey, it furnishes a general scale, by which the proper nature and weight of the truth of each may be respectively adjusted[7].

Every thing which is the subject of human knowledge, belongs either to mind or body. Metaphysic is the universal science, logic the universal art;—these treat more immediately of the former. Physics belong to the latter. Between these, lies a science, which relates to and partakes of both, having its subject derived from the sensible qualities of body,

[6] Sect. v. [7] Sect. vi.

but abstracted by an act of mind. These are the *mathematics;* comprehending quantity continuous and discrete, or magnitude and multitude, and accordingly separating into geometry and arithmetic. The evidence of the external senses, exercised on bodies in respect to quantity (from which all other attributes are abstracted with so much ease, as to supersede the necessity of induction), is the primary principle of mathematical science. These begin with general ideas, capable of clear and adequate definition, of being exhibited to the eye by diagrams and signs; being simple modes, distinct from all other ideas, absolute and unchangeable in themselves, and to be exactly measured and ascertained. These ideas being compared, form a few general propositions which are axioms or secondary principles. They compel conviction from a single act of judgment, and are, therefore, self-evident, though not intuitive. On account of these axioms, mathematical reasoning is perfectly syllogistic[8], reducing

[8] Those who wish to be ocularly convinced of this assertion, may consult the Euclid of Herlinus (Argent. 1566), in which the first six books are laboriously converted into syl-

general truths under more general, till they terminate in the most general. These conclusions, or demonstrated theorems, may be applied, in the same way, to the proof of others almost *ad infinitum*. The truths resulting from such a process are purely scientific, carrying the most absolute and irresistible conviction[9]. In these, the Will has no concern; they belong to the Intellect.

The science of Physics, or natural philosophy, investigates the qualities of things individual and particular, the properties and operations of natural body. The evidence of the external senses forms the primary principle of physics, aided by experiment, and philosophical observation. Its method of reasoning, from a number of experiments and observations to general causes, or secondary principles, is purely and exclusively inductive, but is extended by ana-

logisms. Barrow, in his *Lectiones Mathematicæ*, p. 106, has turned the first proposition into enthymemes. See also Clavius's Euclid, lib. i. prop. 1.—"It would have been difficult," observes Dugald Stewart (vol. ii. p. 260), "to devise a more effectual expedient for exposing to the meanest understanding the futility of the syllogistic theory."—*Editor*.

[9] Part i. chap. 1.

logy. When these secondary principles, or laws of physics, have been thus established, they will account for the truth of particulars by superinduction, without any aid of syllogism; but mathematics apply, with great effect, to those physical forms, which are capable of mensuration. As experiments do not penetrate into the essence of things, but only inform the senses of apparent qualities or effects, as the induction is partial and confined, and the conclusions particular; physical truth is inferior in rank to mathematical, and is not strictly demonstrative. But though not admitting demonstration, it forms a most useful and interesting part of science[10].

After Physics, Metaphysics, or the philosophy of mind, may be most usefully and successfully cultivated. Consciousness is their primary principle, assisted by observations on the intellectual and moral faculties. Their method of reasoning, from a number of such observations accurately made, is inductive, assisted by analogy, to form their secondary or general principles. This method

[10] Part i. chap. 2.

will establish the certainty and utility of metaphysical science, which has hitherto been too much under the dominion of the imagination, with which it has no concern [11].

Facts constitute an extensive and important species of truth. Their first and sole principle is the evidence of the external senses, and require for their proof, the coincidence in a particular transaction, of person, time, and place. Standing themselves as first principles, resulting immediately from the senses, they demand no direct reasoning, either inductive or syllogistic. But reason is employed in examining the senses, by comparing them with themselves, to ascertain, whether they be sound and well-informed, subject to any impediment from nature, imposition from art, or deception from accident. The truth which results from facts is immediate and irresistible, at once, self-evident and intuitive [12].

Facts are enlarged, and extended to distant times and places, by History. The first principle of historical knowledge is the faculty of

[11] Part i. chap. 3. [12] Vol. i. chap. 4.

memory, supported by that universal affection, the love of truth, producing and co-operating with the secondary principle of testimony. The historic method of reasoning is inductive, *from* the primary principle, exercised in innumerable particular instances, *to* the general truth of the secondary. Testimony is, however, different from other general principles, and the reasoning from it very distinct. It is not, like them, the *cause* of truth, it is only the *medium*, by which, truths derived from other causes are conveyed, producing various degrees of conviction, according to the different circumstances, persons, times, and places, with which it is connected, and requiring to be particularly investigated, through the competency of witnesses, the fidelity of relators, the authenticity of records, and other collateral vouchers. Historical truth is only secondary and indirect, varying in its strength through all the degrees of probability with the circumstances, the fidelity of the investigation, and the clearness or obscurity of the media through which it passes[13].

[13] Vol. i. chap. 5.

Perhaps, the author should have mentioned that *origina*

These kinds of truth all belong to the province of the intellect, or theoretic mind.

The practic functions exist in the province of the Will, and relate to moral action, of which, the end is happiness. The primary principle of Morals is the internal or moral sense,—an instinct of our common nature, informing us of good and evil, of the existence of the will, by which men choose the one and avoid the other, and of reward or punishment attaching to the performance or neglect of our duties. Hence we infer a superior law and moral government, the foundation of moral obligation, fixed in the attributes and will of God.—From the operation of these primary principles in innumerable instances, reason derives, by a kind of tacit induction, two universal propositions, as secondary principles,

> All voluntary good will meet with reward:—
> All voluntary evil with punishment.—

But as morality consists of particular actions which are numberless, arising out of various

principle of the human mind, which disposes us naturally to believe, and give credit to the testimony of others; which may be called the *principle of faith, or credence.—Editor.*

relations, it is the chief office of ethical reasoning, to range these, by induction, in classes, called virtues and vices, sins and duties, with their appropriate distinctions. We thus form less general propositions, as middle principles, under which, particular actions may be arranged by syllogism. The truths so deduced are ethical. These, however clear and strong in their conviction, are very different and inferior, in logical evidence, to mathematical demonstrations. The most perfect body of ethics is the morality of the Gospel[14].

Poetry belongs to the imagination, and employs the faculties of imitation, or invention, to produce its various *effects*. It comprehends all the elegant arts. Their end is pleasure, combined with instruction, and their excellence depends on the truth of their various effects, under the conduct of reason. The first principle of the poetical or inventive art, is a native and internal sensibility, recognising the objects and events which produce the different modes of pleasure and pain. Of these different effects often experienced, reason first

[14] Vol. i. chap. 6.

investigates the proper causes, which she then arranges, by induction, in general classes, as poetical ideas or secondary principles. From these, the poet draws the resources of his art, which he applies in all the different acts of imitation or invention, to produce the poetical effect. If these generals be well formed and judiciously applied, if the imitation be true, and the resemblance which it exhibits just, the *effect* produced upon the mind will be uniform and certain. This effect constitutes poetic truth, operating on the sensibility of all, according to its power and delicacy[15].

Music is also an imitative art, or rather an art conjoined to science, for its tones may be measured by geometric progression. It consists in sound and motion, operating through the auditory nerves on the mind, and producing the most touching effects on the passions. Its truth consists in exciting this natural sensibility, according to the style in which it is performed[16].

At the conclusion of the first volume, I have offered some strictures on the Aristote-

[15] Vol. i. chap. 7. [16] Vol. i. chap. 8.

lian logic, in order to trace its origin, and estimate its value[17]. I have also animadverted on the discipline of the Schools, with a cordial wish for their improvement[18].

But we now proceed to a far more important species of truth.—Theology is a science more distinct from all the preceding, than any of them are from each other. It does not originate, like them, from any material subject, or from the mind of man; but from another and far higher source, the mind of God. In this study, all the provinces of intellect, will, and imagination are concerned. Its logic will, therefore, derive important elucidation from a comparison with all.

The theological principle is totally different from and infinitely superior to every other, being the testimony, or word of God, conveyed to man by a supernatural mode of communication called *revelation*. The nature of this divine testimony is somewhat similar to human testimony, from which similarity

[17] Appendix i. vol. i. [18] Appendix ii. vol. i.

it takes possession of the human mind. When the possession is secured, it is not only universal in its operation, but far superior to all other principles, and transcendent in its power. When the principle is established, it rejects all reasoning, whether in deducing its truths, or in respectively deciding on them. They result immediately from its divine authority, and produce an effect in proportion to the principle; which is the strongest and most implicit assent of the mind, distinguished by the name of *faith*. Theologic truths are mysteries, distinct from all others, to be contemplated with reverence, and embraced with implicit confidence[19].

Though reason can have no original, or direct, concern with the principle, or the mysteries, of revelation, its office in theology is various and important. It is bound to inquire,—whether such a revelation, containing such a principle, with its mysteries and credentials, was actually given by God, or received by men, at the time and place asserted[20].

[19] Vol. ii. chap. 1. [20] Vol. ii. chap. 2.

The grounds of reasoning in theology are, consequently, the various means by which the Gospel, containing this principle or word of God, was confirmed, is conveyed down, and to be interpreted by us. The method it pursues, is, first, to estimate the morality or internal evidence of the gospel; secondly, to judge of that part of its external evidence called miracles; thirdly, to study the prophecies—the remaining part of its external evidence. And, as both the time and place of this revelation are far removed, Reason has also to inquire, by an historical investigation,—whether the witnesses of such evidences were well informed and faithful; whether the written record, in which the whole is contained, was aided by inspiration; and whether the Scriptures, which we possess, exhibit a true and authentic transcript of the original[21].

In the study of the Holy Scriptures, thus confirmed and authenticated, reasoning becomes an act of interpretation: and the right and true method of interpreting the volume of Grace, is analogous and similar to that,

[21] Vol. ii. chap. 2, sect. 1.

which has, of late years, been adopted by the best natural philosophers, in interpreting the volume of nature: not by hypothesis, factitious system, and disputation, but from grounds and documents contained in Scripture, and inseparably interwoven with it[22].

In the general interpretation of the Holy Scriptures, the first object of the student's attention is the languages, in which, they were originally written, or early translated. The second is the analogical style. The third, the parabolical style of the sacred writings, in all its compass and variety[23].

In the particular interpretation, or translation, of the Holy Scriptures, it is the first object, by an able and accurate collation, to procure a genuine text. The next is, to translate it in another language, according to those rules of impartiality, propriety, perspicuity, and uniformity, which the peculiar nature of inspired and divine productions warrant and require.

The truth, resulting from this various and extensive train of reasoning in reference to

[22] Vol. ii. chap. 4. [23] Vol. ii. chap. 5.

one common scale. This appeared, in my mind, to be the just and philosophical method to keep the understanding clear and steady in its researches; to render it successful in its investigations, sensible of its own weakness, and thankfully acquiescent in every kind of truth,—particularly in that, which is the subject of the Christian faith; to ground and establish which, on a broad and solid basis, was the principal object of these lectures.

This various and extensive task I have executed, in a treatise of more than sufficient length, if the number and value of its pages are considered; yet far too short, I fear, if we consider the extent and importance of the subject. It was not, however, my intention to descend to a full discussion of the several branches of learning; but only to take a general and cursory view of each. Nor do I presume to teach others, in the style of a dictator; but to invite them to study for themselves, in the language of a friend and fellow-labourer. And though I should not have leisure or ability to execute the other parts of my projected plan, need this be deemed imperfect or incomplete on that ac-

Truth, I have attempted to give a parallel and comparative view of the different kinds of learning, human and divine, classing and arranging them under separate provinces, and analyzing them, according to their respective nature and constitution. Thus, whilst all may be seen, at one view, in their relative situation; each, in its proper cultivation, may be kept distinct; its own principles asserted; its own proofs employed[26]; and the conviction of its truth measured and ascertained by

[26] Superest artis judicandi appendix quædam insignis, quam desiderari statuimus: Siquidem Aristoteles rem notavit, modum rei nullibi persecutus est. Ea tractat, quales demonstrationes ad quales materias sive subjecta applicari debeant; ut hæc doctrina tanquam judicationes judicationum contineat. Optime enim Aristoteles, Neque enim demonstrationes ab oratoribus, neque suasiones a mathematicis requiri debere monet: Ut, si in probationis genere aberretur, judicatio ipsa non absolvatur. Quando vero sint quatuor demonstrationum genera, vel per consensum immediatum et notiones communes, vel per inductionem, vel per syllogismum, vel per eam (quam recte vocat Aristoteles) demonstrationem in orbem (non a notioribus scilicet sed tanquam de plano), habent hæ demonstrationes singulæ certa subjecta et materias scientiarum in quibus pollent; alia, a quibus excluduntur. Etenim rigor et curiositas, poscendo probationes nimium severas in aliquibus, multo magis facilitas et remissio in acquiescendo probationibus levioribus in aliis, inter ea sunt numeranda, quæ detrimenti plurimum et impedimenti scientiis attulerunt.—Bacon. De Augm. Scient. lib. v. cap. 4.

The second Part of my plan will consist, (should I be encouraged to pursue it,) in applying those parts of human learning, which have been analyzed and digested in the first volume, to theology: in order to discover exactly how far, when cultivated according to the rule of reason, they contribute to its evidence and support, and where their application ought to terminate. This will give a comprehensive view of the right use of learning[27]. In the execution of this part, we shall observe the several branches, as they spring from the general trunk of knowledge; we shall distinguish their affinities, connexions, and dependences. We shall thus ascertain how one kind of truth is built upon another, and how far those which are human, can minister, in their subordinate and proper exercise, to those which are divine.

And the third Part will very conveniently accompany the second. By turning our attention, from the right use of learning,

[27] Vol. i. p. 73.

in which the different branches are thus logically contributing to theology, to its abuse[28], in which the rule of reason is neglected or infringed, by their being illogically confounded and mixed together; we shall be able to discover the true and adequate causes of those heretical and schismatical errors, which we hope need only be detected, to be eventually eradicated.

The execution of this part, which forms the completion of the plan laid down, if attended with that success which an author may be permitted to hope, promises to be an effectual support of sacred truth, by a radical subversion of its opponents. It is at the same time calculated to reward our labour, by conferring a high gratification upon the mind, through every stage of the investigation: "Suave est spectaculum, stantem aut ambulantem in littore, navem intueri tempestate in mare jactatam; suave itidem ex editâ arce duas cernere acies concursantes in planitie: at nil dulcius est homini, quam mens per doctrinam in arce

[28] Vol. i. p. 69.

veritatis collocata, unde aliorum errores et labores dispicere possit[29]."

All falsehood is opposite to truth. Error is that falsehood, which availing itself of the weakness of the understanding, the depravity of the will, or the undue influence of the imagination, assumes the colour of truth, by which, reason is deceived. Truth is the health, error the disease of the mind. The one leads to honour and happiness, the other to disgrace and misery.

The human body is a machine or system consisting of many different parts and operations: the mind is also a machine or system consisting of corresponding parts and operations, and, though their union be mysterious, their analogy is conspicuous. The health of both consists in the due and regular performance of their respective parts and operations; and the disorders of both spring respectively from their suspension or irregularity. To remedy the disorders of the body, is the duty of the physician; and to rectify those of the mind, is the duty of the philosopher. But before either can apply his

[29] Bacon. De Augm. Scient. lib. i.

remedy, he must ascertain the cause. The maxim, "Sublatâ causâ tollitur effectus," holds as good in philosophy, as in medicine, and has there, indeed, a more full and efficient operation. After the physician has discovered the cause, he must devise and apply his medicines, without any certainty of success, in the event; whereas, in philosophy divine or human, the discovery of the evil should at least in generous minds, prove the source of cure.

To enable him to investigate disease, the physician should be conversant with the anatomy of the body, have studied its economy and analyzed its functions. In their obstruction or irregularity, he remarks those symptoms which reveal to him the cause of the malady. By a similar analysis of mind, and an acquaintance with its faculties and operations, and by ascertaining the proper exercise of reason in every department of knowledge, whether in its suspension or misapplication, the philosopher is enabled to discover the different causes of error[30].

[30] See Bacon's Advancement of Learning, b. i., and De

The first general cause springs from the neglect or suspension of reason; as a consequence of which, men embrace falsehood for truth, with an implicit trust on the credit and authority of others.

From this cause, spring all those vulgar errors, cherished from age to age, by the blindness of prejudice and the inveteracy of habit. Hence also arise the errors of superstition, differing from the former, only as they prevail in matters of religion, and become more inveterate, in proportion to the greater seriousness and solemnity of the subject, and the universal interest which it involves. Alike the offspring of ignorance and obstinacy, they embrace each other as sisters. They have ever grown and thriven together, in the same soil and climate, under the same social administration and the same friendly cloud of darkness and prejudice. They are gradually annihilated and dispelled by the approach of learning, wherever it gains admittance, as night is dispelled

Augm. Scient. lib. i.; also Dr. Reid's Essays, vol. ii. essay vi. chap. 8, in which an excellent commentary is given on Bacon's "Idols."—*Editor.*

at the approach of day. Under the deadly shade of superstitious errors, superinduced by the artifices of the interested and ambitious, and thickened by the base and corrupted policy of degenerate states, devoted to the god of slavery, the religion of Asia, and the greater part of Europe has languished, for many ages. As knowledge, however, advances, these errors and superstitions naturally decline. In several parts of Europe they have been long on the wane, and are insensibly hastening to decay. The errors of the Jews have been ably refuted[31]. Those of the Roman pontiff, notwithstanding all the gloss and varnish with which they have been disguised, have been abundantly exposed[32]; whilst those of the false prophet of Arabia, though under the cloud of Asiatic ignorance more explicitly espoused, are still more easily refuted[33].

[31] Limborch de Veritate Religionis Christianæ amica collatio cum erudito Judæo.

[32] Chillingworth's Safe Way to Salvation.

[33] Jenkin's Reasonableness of the Christian Religion. Bp. Gibson's Second Pastoral Letter. Grotius De Veritate Christianæ Religionis. Prideaux's Life of Mahomet, and Dr. White's Bampton Lectures.

The author has here, and in several other parts of this

The second general cause of error springs from a different source,—the perversion and misapplication of reason,—still more deceitful and difficult to be detected and extirpated: which, in the multiform shapes that it assumes, will be the subject of our future studies. The abuse of learning, by its violation of the rule of reason, constitutes this cause in these several ways.—First, by reasoning from no principles of any kind; secondly, by reasoning from the principles of one branch of learning, in the method of another: thirdly, by reasoning from the principles of one, to the truths of another: lastly, by expecting the same kind and degree of conviction in the truths of one, which belong to another, and of which it does not admit.—Thus this second general source of error may be distinguished into four classes, which, in their separate or joint operation, will account for all scientific and theological errors, however different they may appear. This verifies the obser-

work, expressed himself far too sanguinely on the decrease of error and the progress of truth.—*Editor.*

vation of our great philosopher,—" amongst opposite errors, the causes of erring are commonly the same[34]."

Springing from a different source, these learned errors have a different effect from those of ignorance. As these are on the wane, the former perhaps are on the increase. Strenuously intrenching themselves in the usurped fortresses of truth and jealous of their hold, they maintain their false position, by all the formalities of reasoning and ceremonials of argument, and lead in the chains of sophistry a considerable part of the learned. Assuming various shapes and postures of defence, shifting from ground to ground, and relieving each other with the changes of time and fashion; while the mind is subject to vice and infirmity, they threaten to continue and to struggle even with Truth herself. They are the adversaries which religion has chiefly to dread; for though its truth will overcome at last, they meanwhile weaken its force and retard its progress.

It is the usual method of combating these

[34] Bacon's Advancement of Learning.

errors to attack them, with the arms of polemical divinity, as they appear in some heretical form, equipped in the accoutrements of false reasoning. But the more successful and compendious mode of exterminating them would be to discover and expose their causes. This would essentially defeat their consequences in every form. Instead of aiming bold and efficient strokes, at the root of the tree of error, controversy, however well conducted, is only like beating among the branches. If one be lopped off, perhaps several may spring up in its place.—This method has prevailed, because it is friendly to that polemical contention and scholastic disputation, which delight to keep up the strife from age to age; in which, so many champions of truth have been defeated by the patrons of error, and so many battles left undecided. The method which these lectures would adopt and recommend, is, not to combat individual errors under the disguise of truth, by individual arguments; but to investigate and expose their general cause, under the conviction, that it will contribute more effectually to

their extirpation, than if we were to write volumes of controversy to attack those endless forms and appearances of error, which lie in wait to deceive and mislead mankind. When the tree is pierced in the root, its leaves, branches, and poisonous fruit must come down together.

The general causes which I have mentioned, and to which, in their joint or separate operation, all learned errors are to be attributed, originate either in the pride or prejudice of the human mind.

The first, which consists in reasoning from no principle at all, however absurd it may appear even to common sense, is of vast influence and extent. The powers of the human mind are doubtless great; but its presumption is often greater[35]. Not content to be employed on such principles and

[35] Alius error fluit ex nimia reverentia, et quasi adoratione intellectus humani, unde homines abduxere se a contemplatione naturæ, atque ab experientia, in propriis meditationibus et ingenii commentis susque deque volutantes. Cæterum præclaros hos opinatores et (si ita loqui licet) intellectualistas, qui tamen pro maxime sublimibus et divinis philosophis haberi solent, recte heraclitus perstrinxit,—'Homines,' inquit, 'quærunt veritatem in microcosmis suis, non in mundo majori.' Respuunt enim quasi abecedarium naturæ,

materials, as are furnished for her use by Providence and the nature of things in a slow and sober exercise, she vainly presumes, by an action and operation of her own, to invent others of a superior order, by the help of which, she may soar with rapid wing into the possession of the sublimest truth. Buoyed up by these self-inventions, she attempts unbounded flights into the fertile, but delusive regions of imagination. In these regions, was erected that edifice of hypothesis, filled with dreams and fictions, with which the pride and self-sufficiency of philosophers rendered them enamoured, and embraced them for the most valuable truth. From these fictitious principles, we observe that even Aristotle, Plato, and Pythagoras, the ancient, and more particularly some modern metaphysicians, have been led, by trains of solid reasoning, to systems of splen-

primumque in operibus divinis tirocinium: quod si non facerent, potuissent fortasse gradatim et sensim, post literas simplices et deinceps syllabas, ad textum et volumen ipsarum creaturarum expedite legendum ascendere. At illi contra, jugi mentis agitatione, urgent et tanquam invocant suos genios, ut vaticinentur eis edantque oracula, quibus merito et suaviter decipiuntur.—Bacon. De Augm. Scient. lib. i.

did and delusive theory. When the mind, that complex machine, has the first wheel, which gives movement to every other, set wrong, however ingenious be the mechanism, the whole will terminate in error.

The peculiar nature and mystic sublimity of theology open a two-fold door for this cause of error. It is liable either on principles of human invention, to erect nominal truths, which have no existence; or, to attempt, from such principles, to prove or disprove truths, which are to be embraced on no other principle, than the testimony of God[36].

The other causes, which have been assigned as the general sources of error, consisting in the adoption of wrong principles, in the application of a wrong method of reasoning, or in the expectation of a wrong species of conviction, have their origin in prejudices, springing from partial and inveterate habits.

Man is altogether a creature of habit. All his virtues are habits; all his vices are habits;

[36] Bacon. Nov. Org. aphor. 89.

and habit has a powerful sway over the mind, not only in the elegant, but also in the scientific parts of learning. As the ear is prepared and qualified by habit, for the enjoyment of music, the eye for that of painting, and every other part of the mental and corporeal frame, adapted to its proper object: so is the mind prepared and qualified by habit, for the search and relish of every kind of truth. But habit, which is naturally the friend of virtue and knowledge, by being too long and closely confined to the same objects, employments, and pursuits, as it is observed to contract and even distort the body; so it generates in the mind a prejudice and confirms a partiality, which not only cramp and confine, but often weaken and destroy its specific powers[37].

It is the remark of a living writer, who is no ordinary philosopher, that "custom and some other causes have made many deviations from the natural pleasures and pains of the several tastes; but then the power of distinguishing

[37] See Bacon's account of these *idols*, Nov. Org. lib. i. aphor. 58—62.

between the natural and the acquired relish remains to the very last. A man," says he, "frequently comes to prefer the taste of tobacco to that of sugar, and the flavour of vinegar to that of milk; but this makes no confusion in tastes, whilst he is sensible that the tobacco and vinegar are not sweet, and whilst he knows that habit alone has reconciled his palate to these alien pleasures[38]." Unfortunately, however, for the interests of truth, there is here no parallel between the mind and the palate; for when the mind has been enslaved by long usage to the cultivation of one kind of truth, it not only relishes and prefers, but becomes often insensible to the distinction, nay, even existence of any other.

Thus addicted to one set of principles, habituated to one train of reasoning, and accustomed to one kind of conclusions, men are often disqualified, by their very habit of stating, reasoning, and concluding, and even by their success in some parts of learning,

[38] Burke's Introd. to Essay on the Sublime and Beautiful. Aristotle's Metaph. b. ii. chap. 3.

from prosecuting truth, in others. Wedded by an intemperate fondness and admiration to their own studies, and often not knowing much beyond them, they are unwilling to allow that truth can exist in any other shape. In every part of science, it is their principles must be adopted, or their method of reasoning employed, or their conclusions drawn. They refuse to be satisfied with any other[39].

When, under the influence of these prejudices and partial habits, philosophers turn their attention from their other studies, to theology, they are either defeated in their attempt to reason at all, they reason incorrectly, or they are disappointed, that its truths do not bring the same conviction, as they have been accustomed to feel. This

[39] Alius error huic posteriori finitissimus est, quod homines sæpius imbuant et inficiant meditationes et doctrinas suas, opinionibus quibusdam et conceptibus propriis, quos potissimum in admiratione habent, aut artibus, quibus maxime addicti et consecrati sunt; cætera omnia illis deliciis inficientes et quasi intingentes, licet fuco admodum fallaci. Sic suæ philosophiæ immiscuit Plato theologiam, Aristoteles logicam, Secunda schola Platonis, (Proclus scilicet et reliqui), mathematicas. Istas enim artes solebant illi, tanquam filiolos suos primogenitos, suaviari.—Bacon. De Augm. Scient. lib. i.

will account for a phenomenon much to be deplored,—that some of the brightest ornaments of human learning have reasoned themselves out of the sacred temple of light and truth, into the gloomy dungeon of infidelity.

Such I apprehend to be the true causes of the most dangerous and inveterate errors which beset the Christian faith; and which are the more to be lamented, as they raise enemies to religion in the persons of those, who, from their love of learning, would by its proper use prove the ablest supporters of Christianity. After showing, therefore, how far those parts of learning which have been analyzed in the preceding volume, minister to religion, I would endeavour to trace these errors to their proper causes, in their joint or separate operation. This method of combating error will relieve me from two evils attendant on that of polemical controversy—disputation, which terminates in logomachy—and intemperate warmth, which ends in animosity.

Learned men have often concealed what they possessed, or supposed they possessed, in

sciences and systems[40] (as the miser hoards his money in chests and boxes), instead of increasing the general stock of learning, by drawing their opinions from true and genuine principles, and guarding them from error, by carefully inquiring into the causes from which it springs. They then defend them with all the fury of clamorous disputation. Hence results polemical controversy, in which the combatants and defenders of systems take the field, each equipped in his private armour, which he employs in his own partial way: and the whole merit of the contest consists in lengthening out the disputation, by univocating, equivocating, and defining by terms abstracted from things, and propositions devoid of meaning. The same questions, which had been agitated for ages,

[40] Alius error est, præmatura atque proterva reductio doctrinarum in artes et methodos; quod cum fit, plerumque scientia aut parum, aut nihil proficit.—Bacon. De Augm. Scient. lib. i.

I have lately met with a curious and striking illustration of this remark in the "Axiomata Philosophica" of the Venerable Bede (Colon. 1618), in which all the elements of science and philosophy are reduced into first principles or axioms, and this, long before Newton or Bacon had instructed us in our ignorance.—*Editor.*

were left undetermined; and thus the battles, which were neither lost nor won, were always ready to be fought again.

Of the three expedients, proposed by its great reformer, to remove the difficulties of learning, the most important, he observes, is that "wisdom of design, which strikes out the right way to accomplish what we propose; that prudent choice of means, which conduces more effectually to the end in view, than the application and accumulation of the greatest force[41]." If the plan, which I have laid down for the discovery of different kinds of truth, be sound and philosophical, it will point out the road which is to be pursued in the detection of error, which is its opposite. As the way to the one is in a right line exactly prescribed, every deviation from that line will lead to the other. And thus we have only to mark with care the particular cause or obstacle, which intervenes to

[41] Inter hæc tria, merito primas tenet consilii prudentia et sanitas; hoc est, monstratio et delineatio viæ rectæ et proclivis, ad rem, quæ proponitur, peragendam—medii prudens electio efficacius conducit ad rem, quam virium aut intentio aut accumulatio.—Bacon. De Augm. Scient. lib. ii. cap. 1.

throw reason out of the direct, into the oblique road—by shunning the cause we shall avoid the danger.

This is to detect error by the scale of truth immediately applied. This would bring all reasoning, which has been so various and so clamorous, to a certain and silent issue, by prescribing a general and standing law,—"That the matter in question be referred to its proper province, that the combatants come out of their private ground, and meet it on its own principles, and none beside; that they leave behind their prejudices and habits, which are their private armour, and argue in the method which is its own, and in no other; and that they go hand in hand in the philosophical, not disputatious search of truth, and detection of error, obliging themselves to embrace the one, and to discard the other, of whatever kind, or wherever it be."

2. As to the other evil incident to controversy, however irritable be the temper of the theological reasoner, the method here proposed would relieve him from the effects of unbecoming warmth. It can trace error to any of the causes which have

been assigned, without charging it indiscriminately on guilt; and, in the fair pursuit of its object, it can allow others all the merit which they possess, and pardon their faults, convinced of the validity of the axiom—that Truth is never so graceful and successful, as when led by the hand of Charity.

The spirit of this Wisdom, we are taught, "is first pure, then peaceable, gentle, and easy to be entreated, full of mercy and good fruits, without partiality, and without hypocrisy[42]. This lovely portrait, it becomes her children, therefore, in the act of justifying her, neither to deface or distort. Why should intemperate zeal be suffered to take the place of sober argument? Why should candour be supplanted by illiberality, or benevolence by scorn?—By the favour of Providence and the liberality of the public, the Christian church has ample endowments, if properly bestowed, for the support of advocates, who are able and willing to maintain her cause; and why should they swell with anger, if the temple of religion be attacked? Experience would

[42] James, iii. 17.

inform them, they have far better reason to rejoice,—her truths will be certain to triumph from examination, and in that triumph, to gain larger and firmer hold on the public mind.

An excellent prelate, whose learning and virtues do honour to this age in which he lives, in his zeal for moderation, deems it an act of wisdom, "to show condescension to the very prejudices and humours of men;" and is also of opinion, that "their errors may sometimes be removed, by arguing with them on their own mistaken principles." To this one act of his condescension, the author of these lectures cannot consistently subscribe, as it is diametrically opposed to the whole scope and tenour of this work. It has been stated as a principal cause of error. In all other points, his lordship's condescension and moderation do equal honour to his heart and understanding. "The errors of men," he proceeds, "may sometimes be removed, by allowing all that truth and reason will warrant to their opinions; by putting the fairest construction upon their designs, instead of fiercely declaiming against them;

above all, by testifying a sincere disposition to advance truth and goodness, without any indirect views to our own interest. Or, were all other considerations out of the case, we could never be excused from proceeding in the way of gentleness and civility, from treating them with due respect, and expressing the sincerest good-will to their persons. Be their moral and religious defects what they may, we should hardly be wise, if we reproved with bitterness, advised with insolence, and condemned with passion. In all addresses to mistaken and bad men, where our purpose is to inform, or amend them, the gentlest applications are surely the best, because these excite no passion to counteract their virtue[43]."

Thus have I executed, to the utmost of my power, the first Part of this new logic, or general investigation of truth and error, and given a *prospectus* of the remainder. Whilst I acknowledge myself under great obligations to different writers and philosophers,

[43] Hurd, vol. ii. serm. 2.

and particularly to Aristotle and Bacon, the two champions of learning, I have freely exercised the privilege of an author, by submitting their doctrines to the examination of my own judgment; thus rendering myself solely and properly responsible for the result. If I have been too bold and independent in the exercise of this privilege, to say that I deplore it, is what I deem a very weak and insufficient apology. The best apology which I can make to the authors I have injured, or to the public, is to solicit the fair and candid examination of scholars and philosophers, with the promise to retract, change, correct, and improve any or every part, upon fair conviction. Sensible of the many faults and imperfections, which must have overtaken me in this various and extensive walk, and professing, that the improvement of sound learning is not only the ruling motive, but the sole desire of my heart, I have to request of the few, who shall do these volumes the honour of a perusal (from the nature of the work, it neither expects nor hopes for many readers), that with a free and independent mind, they will read with care, and judge

with candour; and no one will, I trust, have cause to complain of the obstinacy or unfairness of the author. And should this humble essay, which we presume to call a new logic, have the singular good fortune to lead men, who are the sons of science, to think and to judge for themselves, and not according to the thoughts and opinions of others; this one effect, by opening the door to sound improvement, will prove more than a sufficient recompense for my labour.

[*The following Extract from the Author's Manuscripts was omitted by mistake at the close of Chap.* V. *p.* 187.]

Having thus delineated the particular styles of the Holy Scriptures, as they are ranged under the heads of analogy and parable, it may be useful to state the general rules by which reason should proceed, in establishing the proper interpretation of the Sacred Volume—I. By judging of the particular sense, from the general scope and design of the whole; II. When the inquiry relates to any particular occasion (as in the Epistles), by considering well the particular circumstances, and whether the sense has a just connexion with the context, both preceding and subsequent; III. By diligently comparing one Scripture with another, Scripture being ever the best interpreter of itself; and lastly, by examining whether the sense, thus obtained, be agreeable to the analogy of faith; that is, whether in itself, or its consequences, it be consonant or contrary to the general tenor of the dis-

pensation, to the known attributes of God, and the acknowledged articles of faith.

It is in concert and combination with these primary canons for the just interpretation of the word of God, that we would advise the theological student, to pay also a just deference to the authority of the Christian writers of the first and second centuries; not the slavish deference of the Romish church, but that, which is quite consistent with the spirit and examples of our own Protestant reformers.

As a corollary to these general rules of scriptural interpretation, in all controverted places of Holy Scripture, the best ground and foundation we can proceed upon, is the sense in which they were understood by those, to whom they were first delivered. Those who received the doctrines of religion from the mouths of the apostles, or from their writings, whilst they were living, must have best known the import of these writings; and next, those to whom they taught them; and thus in succession, through the several ages of the church. This is bringing the act of interpretation, not to the assumed authority

of the Romish church, but to matter of fact; to what was the universal doctrine of the general, or Catholic church, in the first and purest ages. This was the method taken by the early Fathers upon all occasions. They did not rely on the refinements of criticism, or the etymology of words; but the question with them was,—*Quis unquam talia audivit?*— And, considering that the Gospel was preached, before the death of the apostles, in most countries of the known world, the doctrine universally received in different and distant countries, must be that which was first preached and delivered to them, and could not result from any concert or contrivance among those, who had no intercourse or even knowledge of each other. And thus, by the providence of God, the universal church, in all its various branches and divisions, becomes a check upon itself, and remains the standing guardian of the Holy Scriptures,—" the Pillar and Ground of the Truth."

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THE END.

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